

WELCOME

TO THE RUNWAY SAFETY ACTION TEAM (RSAT) MEETING

Air Traffic Manager

Omar Johnson

Airport Director

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RSAT MEETING PURPOSE

- Open Discussion
- Surface risks
- Risk mitigations
- Best practices
- Safety resources

TAKEAWAYS

- Local safety trend awareness
- Safety resource availability
- Action Item identification
- Runway Safety Action Plan (RSAP) update



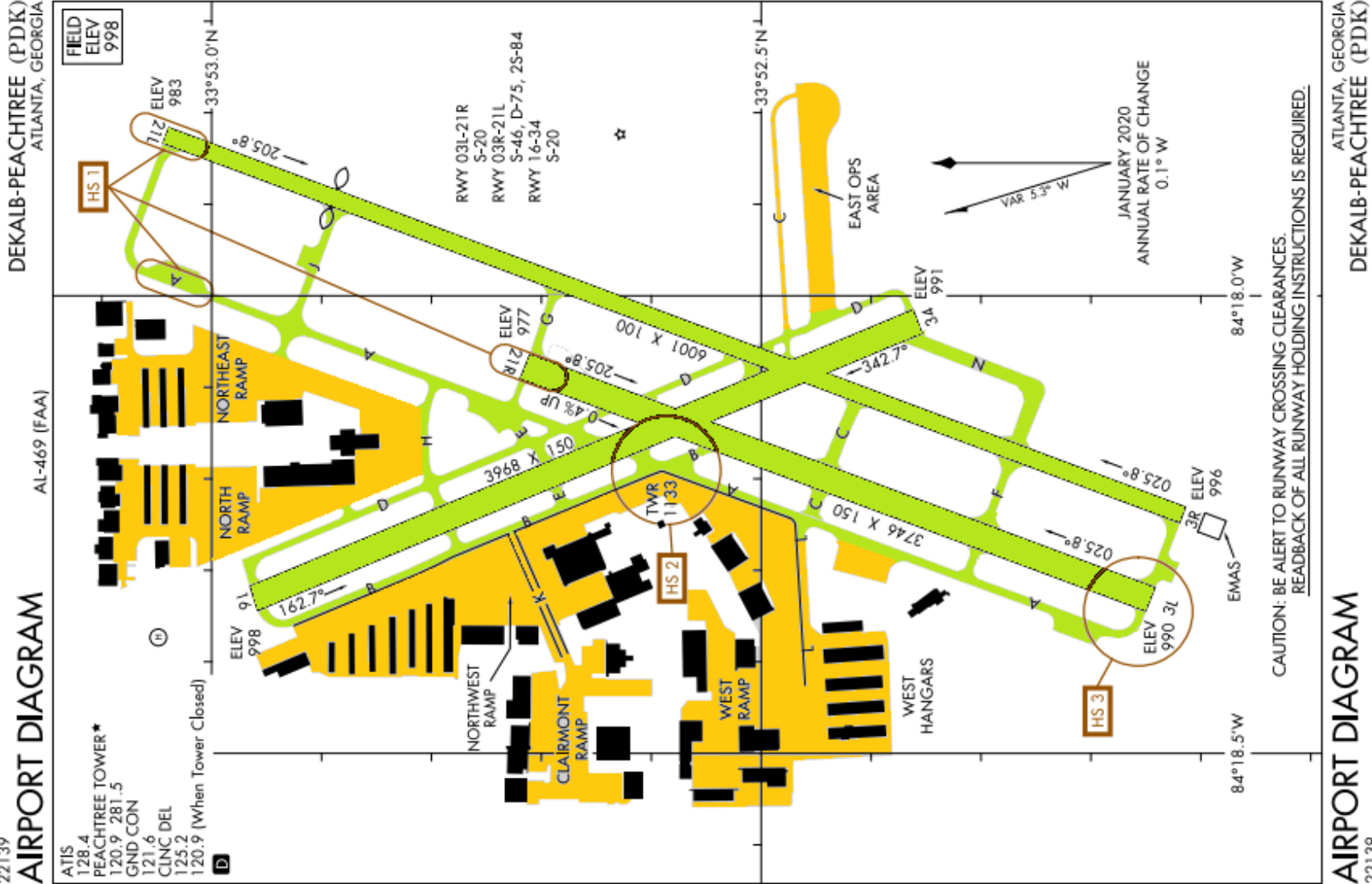
WHAT ARE WE DISCUSSING TODAY?

MOVEMENT AREAS

- **Runways**
- **Taxiways**
- **Any area on the airfield where operations require ATC permission**



PDK Movement Area



Movement Area:



Non-Movement Area:



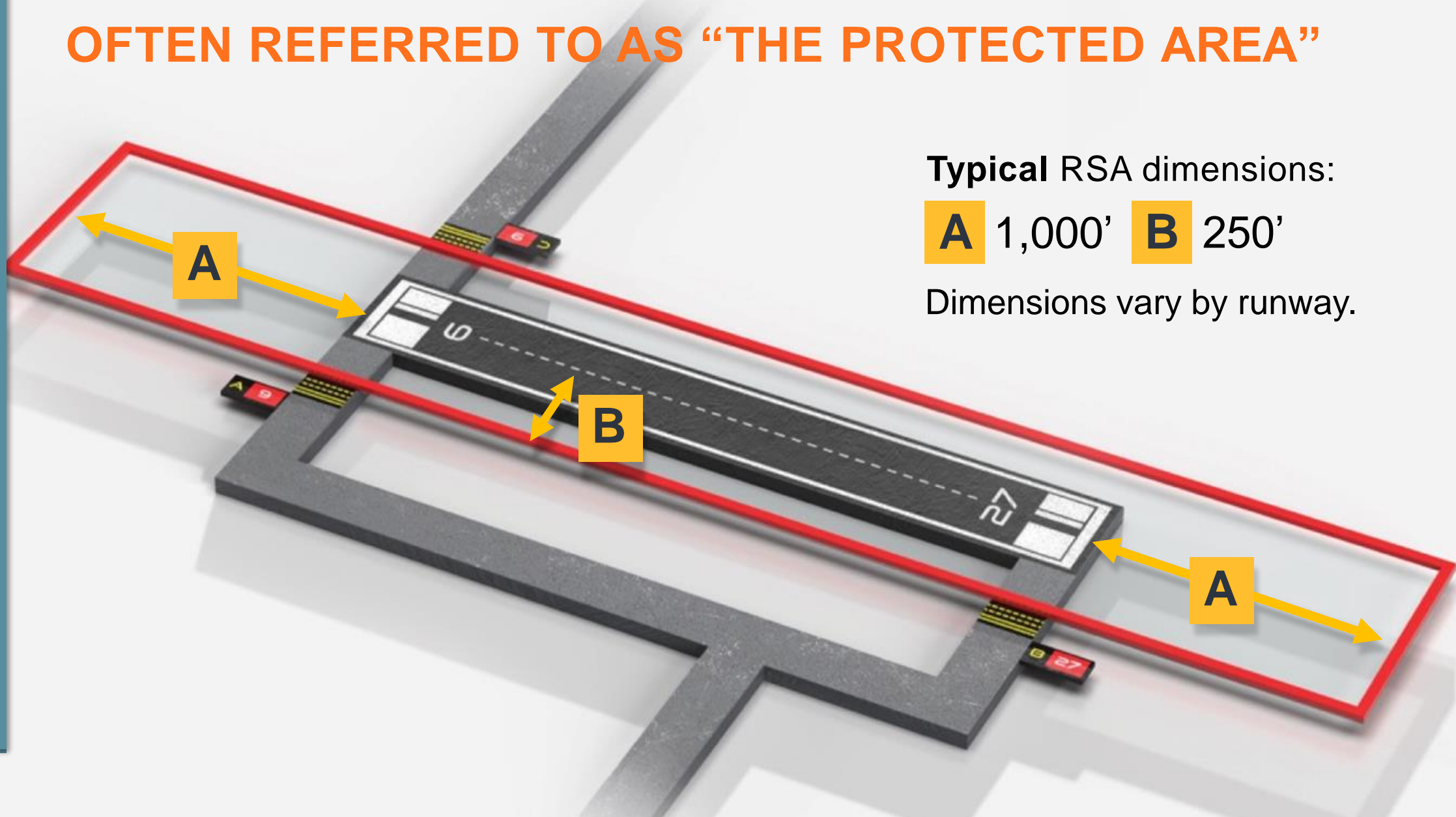
RUNWAY INCURSION (RI)

Incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft



RUNWAY SAFETY AREA (RSA)

OFTEN REFERRED TO AS “THE PROTECTED AREA”



Typical RSA dimensions:

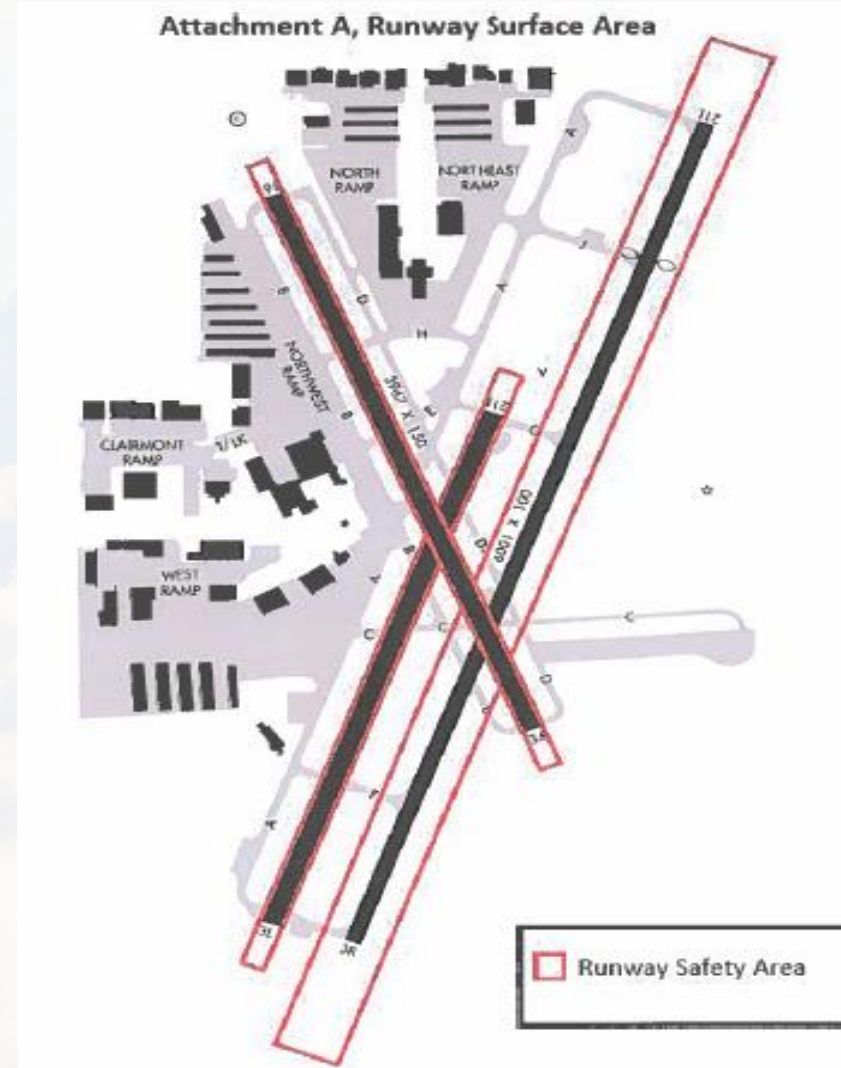
A 1,000' **B** 250'

Dimensions vary by runway.

LOCAL

RUNWAY SAFETY AREA (RSA)

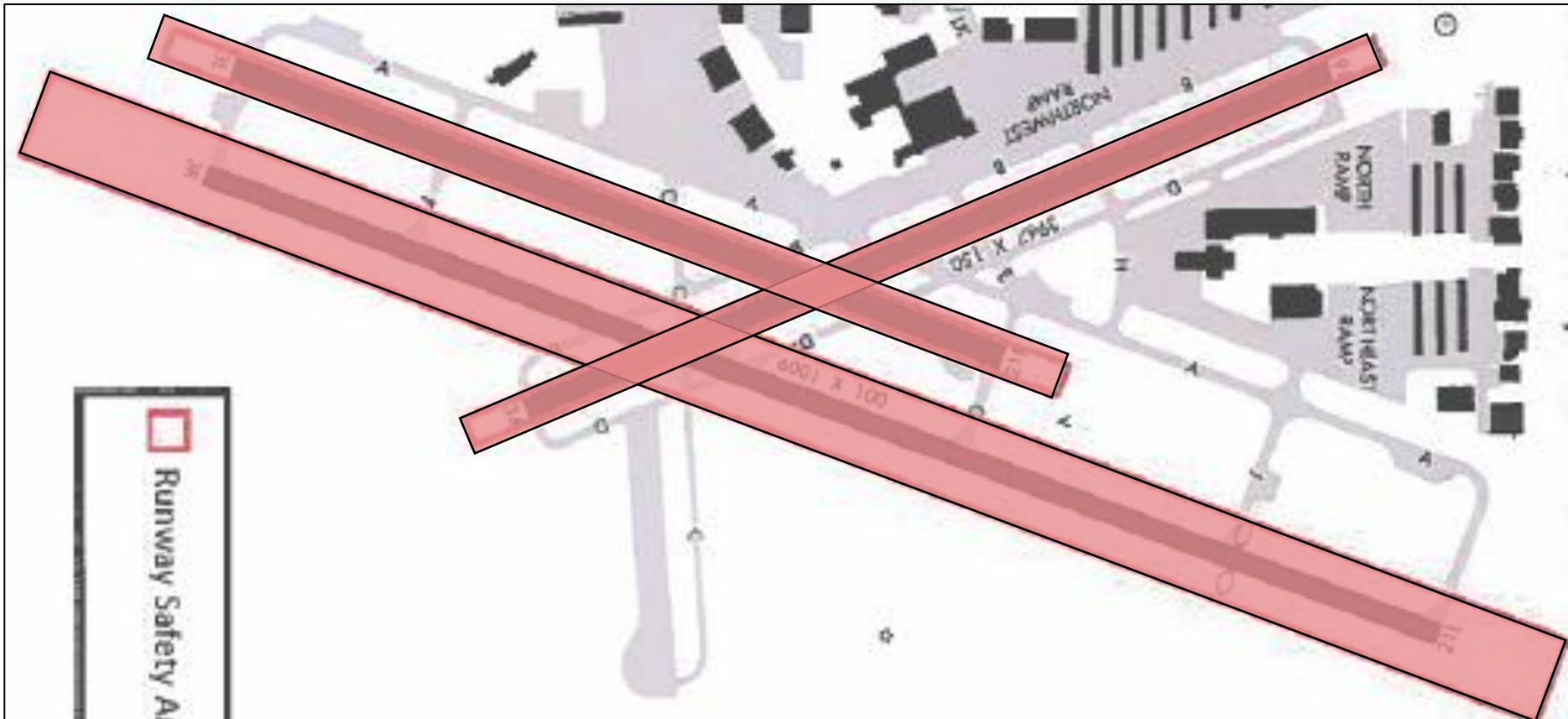
- Runway 3R/21L: 200ft either side of centerline AND extending 410ft beyond end of Runway 3R & extending 600ft beyond end of Runway 21L
- Runway 3L/21R: 75ft either side of centerline AND extending 240ft beyond each end of the runway
- Runway 16/34: 75ft either side of centerline AND extending 240ft beyond end of Runway 34 & extending 220ft beyond end of Runway 16



AIRFIELD MOVEMENT AREAS

RSA / PROTECTED AREA

- ATC authorization is required to enter the **RSA/Protected Area**
- When on this surface without authorization, you have committed a Runway Incursion (RI)



SIGNAGE & MARKINGS

Both signs and surface-painted markings indicate surface designations to aid in situational awareness

Standard sign colors are:

- Red/White denotes a warning
- Yellow/Black are directional



APPROACHING THE HOLD SHORT LINE

You will meet the double solid lines first

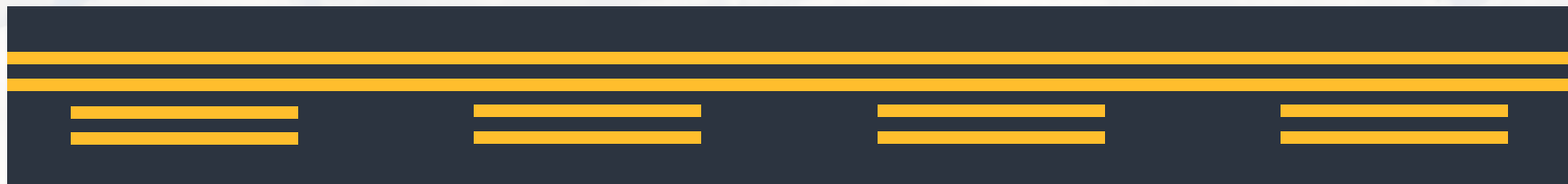
- Authorization is required to enter or cross the RSA/ Protected Area
- Crossing this line without authorization is the most common type of **Runway Incursion (RI)**



CLEARING THE HOLD SHORT LINE

You meet the double dashed lines first

- You are **EXPECTED** to get past this line if nothing is impeding forward movement. Until you fully clear this line, you are still in the 'runway environment' which may cause a loss of separation, go-around or another type of RI



When clearing Rwy 3R.
Taxi past the hold line
where the dashed side
faces you



Hold Short of Rwy 3L
where the solid lines
face you



PDK Hold Short Markings

- Hold markings for Runway 3R/21L are deceptively far from the 3R/21L edge line.
- Pilots exiting Runway 3R/21L should cross the dashed side of the first hold line and hold short of Runway 3L/21R prior to the solid side of the next hold line.
- Aircraft holding short of the wrong line prevents tower from using Runway 3R/21L



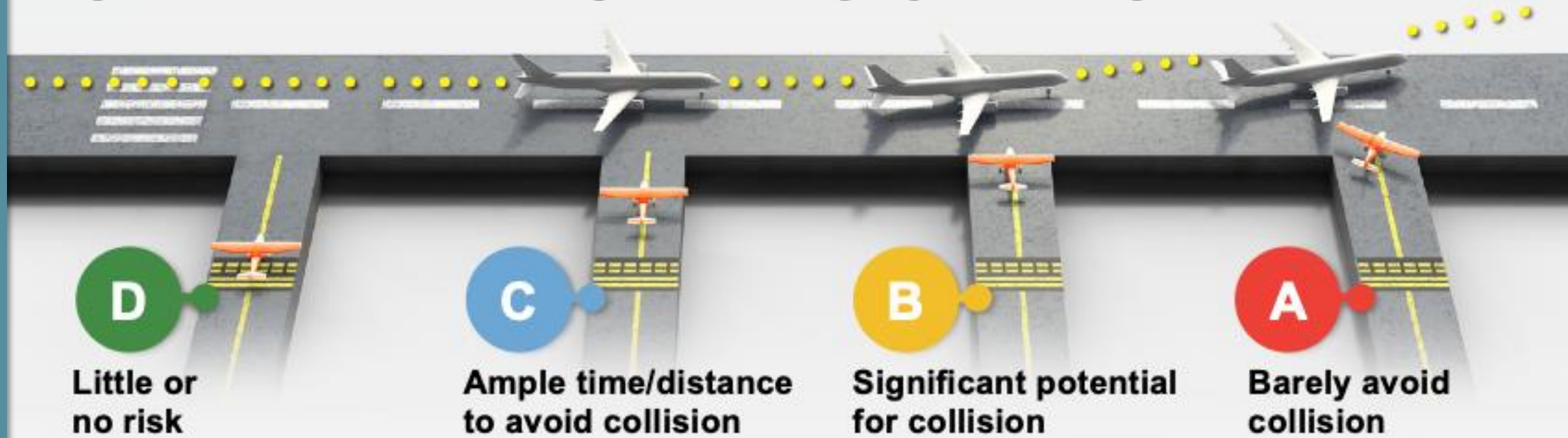
CLASSIFICATIONS OF RUNWAY INCURSIONS

Runway Incursions are classified into various types, based on attributed actions:

- **Operational Incidents (OI)** are attributed to Air Traffic Control action or inaction
- **Pilot Deviations (PD)** are attributed to pilots operating an aircraft under its own power
- **Vehicle or Pedestrian Deviations (V/PD)** are attributed to a vehicle driver or non-pilot operating an aircraft under its own power, a vehicle driver towing an aircraft, or a pedestrian
- **Others (OTH)** are events not clearly attributed as determined above. This can include events caused by equipment failure or other factors



RUNWAY INCURSION SEVERITY CATEGORIES



- A category **D** event involves no other aircraft or vehicle
- Events in categories **C**, **B**, and **A**, increase the risk of collision, respectively, based on proximity and closure rate/speed of event participants/targets



RUNWAY INCURSIONS

FY2022 | BY THE NUMBERS

52.5M take-offs & landings occurred in the NAS. Of which:

1,713 were Runway Incursions

62% PD
(Pilot)

18% OI
(Controller)

18% VPD
(Vehicle/pedestrian)

2% OTH
(Other)



LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2023/05/28-0001 RI VPD D



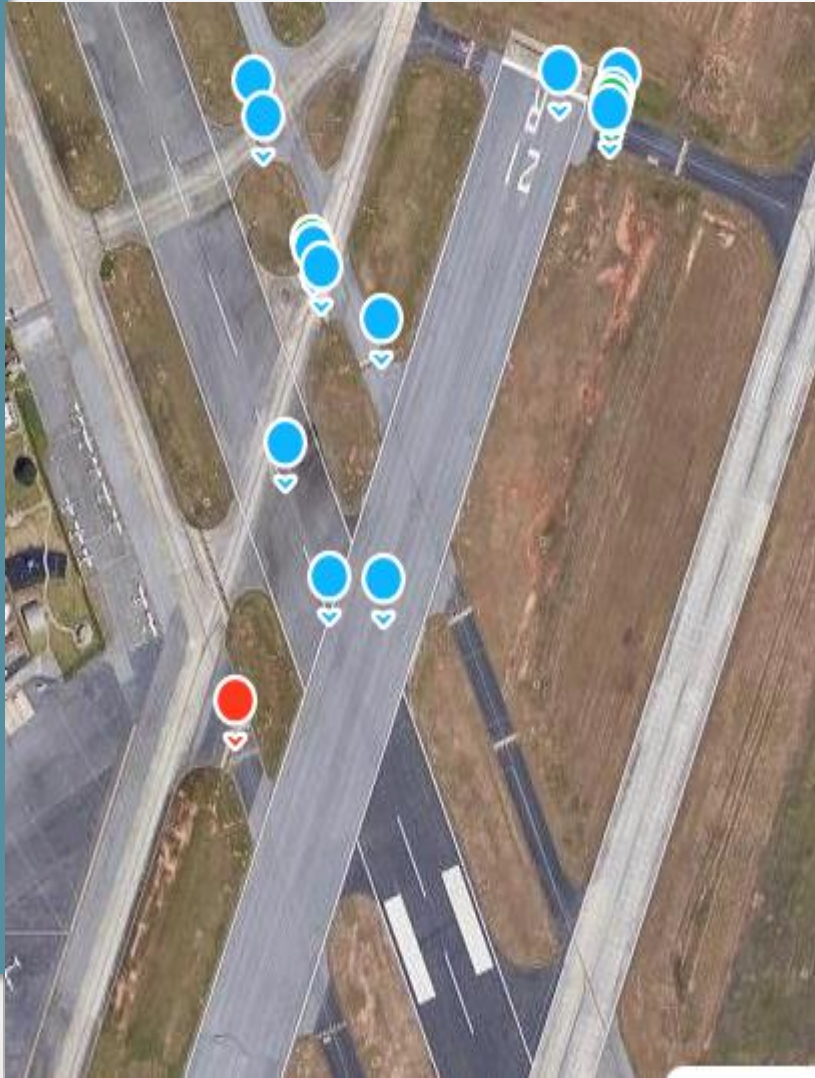
(Event 1 of 2) Motorcycle crossed Runway 34 without ATC authorization. A motorcycle traveling eastbound crossed Taxiway B from the Northwest Ramp, entered Taxiway H, and proceeded to cross the closed portion of Runway 34, and Taxiway D to the North Ramp without communication or approval. Airport Ops was notified. No other traffic was involved.

(Event 2 of 2) Motorcycle crossed Runway 34 without ATC authorization. The motorcycle backtracked from the North Ramp to the Northwest Ramp. Without communication or approval, the motorcycle entered Taxiway H traveling westbound, crossed Taxiway D, the closed portion of Runway 34, Taxiway B, and exited onto the ramp. Airport Ops intercepted the vehicle on the ramp. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2023/05/22-0001 RI PD D



Aircraft 1 crossed Runway 34 without ATC authorization. Aircraft 1/B350 landed Runway 3R and was issued a left turn at Taxiway G, cross Runway 3L, and contact GC. Aircraft 1 crossed Runway 3L, and without approval turned left onto Taxiway A and crossed closed Runway 34. No other aircraft were involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

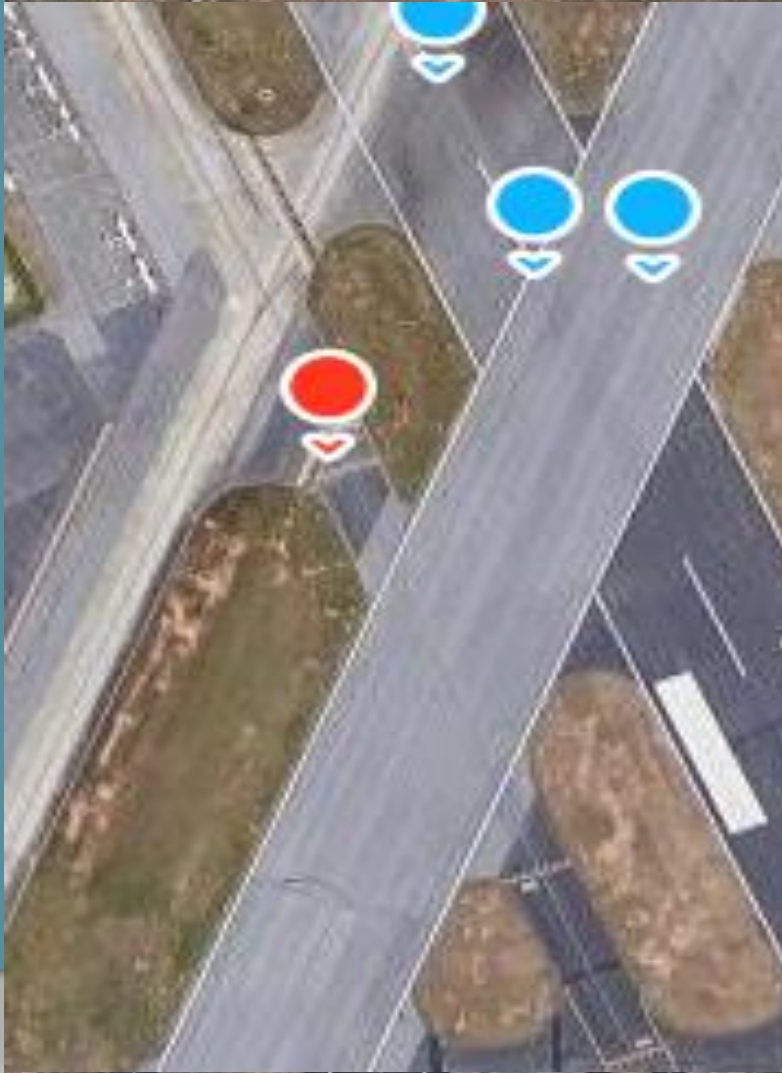


PDK-M-2023/05/14-0002 RI PD C

Aircraft 1 landed on Runway 3R without ATC authorization. Aircraft 2/C550 turned right base cleared to land Runway 3R. Aircraft 1 turned left base cleared to land Runway 3L. The pilot readback was correct. Traffic was issued and both pilots reported traffic insight. Without approval, Aircraft 1 turned final to Runway 3R, in front of Aircraft 2, and landed on Runway 3R. Aircraft 2 was sent around before the threshold as Aircraft 1 was exiting Runway 3R at Taxiway G.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION



PDK-M-2023/05/01-0003 RI VPD D

Vehicle entered Runway 21R without ATC authorization. An unescorted construction Vehicle crossed Taxiway A to B, then entered closed Runway 21R at Taxiway B without communication or approval. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2023/04/25-0001 RI PD D



Aircraft 1 crossed Runway 3L without ATC authorization. Aircraft 1/PA28 was instructed to taxi to Runway 3L via a right turn on Taxiway A cross Runway 34 (southwest bound). Aircraft 1 proceeded via Taxiway A, turned left on Taxiway D, and crossed Runway 3L without approval. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2023/04/24-0002 RI PD D



Aircraft 1 attempted to depart Runway 3L without ATC authorization. Aircraft 1/C172 holding short Runway 3L at Taxiway A took an uninvolved aircraft's takeoff clearance. Aircraft 1 read back the clearance. LC did not catch the incorrect readback. Aircraft 1 entered Runway 3L without approval and was instructed to exit. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2023/04/23-0001 RI PD D



Aircraft 1 entered Runway 3L without ATC authorization. Aircraft 1/PA28 and a BE58 were holding short Runway 3L at Taxiway A for departure. LC cleared BE58 (number 2) for takeoff. Partially stepping on each other, both pilots responded. LC responded "Both of you just hold short" but received no acknowledgment. The BE58 complied, as Aircraft 1 was entering Runway 3L without approval. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2023/04/20-0003 RI OTH A



EMERGENCY - Aircraft 1 landed opposite direction on Runway 21L. Aircraft 1/C150 was cleared for takeoff on Runway 21R and began the takeoff roll. Aircraft 2/CL35 was cleared for takeoff on Runway 21L and advised of traffic departing on Runway 21R. As Aircraft 2 rotated on Runway 21L, Aircraft 1 advised of a rough running engine and made a 180 to land opposite direction on Runway 21L. Aircraft 2 was issued traffic and reported Aircraft 1 in sight. Aircraft 1 was then cleared to land Runway 21R. Aircraft 2 pilot later advised of rotating aggressively, pitching the aircraft well above a normal rotation, to gain altitude and overflying Aircraft 1 at approximately 200-300 feet.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION



PDK-M-2023/04/20-0002 RI PD D

(Event 2 of 2) Aircraft 1 departed without ATC authorization. Aircraft 1/PA28 turned inbound on 1 mile final for Runway 3L. The pilot asked if they were cleared to land with no response from LC. Aircraft 1 conducted a touch-and-go (departing) on Runway 3L without clearance. No other traffic was involved.

(Event 1 of 2) Aircraft 1 landed without ATC authorization. Aircraft 1/PA28 turned inbound on 1 mile final for Runway 3L. The pilot asked if they were cleared to land with no response from LC. Aircraft 1 conducted a touch-and-go (landing) on Runway 3L without clearance. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2023/03/19-0003 RI OI C

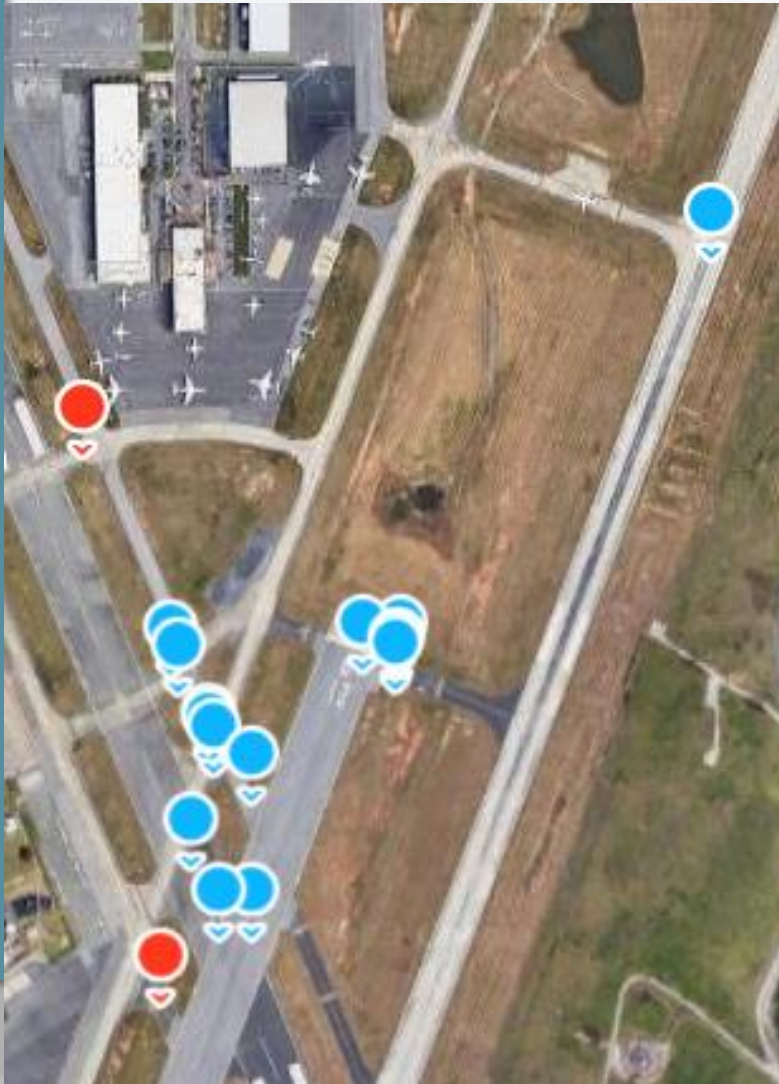


Aircraft 1 entered the Runway 34 RSA without ATC authorization. GC instructed Aircraft 1/BE58 to cross Runway 3L at Taxiway G and then taxi via Taxiway E, Taxiway B and hold short of Taxiway D on Taxiway E. Pilot read back Taxiway E, Taxiway B, hold short of Taxiway D on Taxiway B. GC did not address the incorrect read back. Aircraft 1 turned left on Taxiway A and crossed the Runway 34 hold line without ATC authorization. Aircraft 1 did not cross the runway edge line. LC issued go around instructions to Aircraft 2/P28A within .1 mile final Runway 34, prior to the runway threshold and to an additional C172 on .6 mile final for Runway 34.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2023/03/13-0001 RI PD D



Aircraft 1 entered the Runway 34 RSA without ATC authorization. Aircraft 1/C525 was instructed to taxi from the northeast ramp to Runway 3R via Taxiway A and hold short of Runway 34. The pilot read back was correct. Aircraft 1 crossed Runway 34 hold line without clearance and was stopped before crossing the runway edge line. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2023/03/01-0001 RI PD D



Aircraft 1 landed Runway 21R without ATC authorization. Aircraft 1/PA28 was cleared to land on Runway 21L. The pilot readback was correct. Aircraft 1 landed on Runway 21R without clearance. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2023/02/04-0001 RI VPD D



Vehicle crossed Runway 16 without ATC authorization. An unidentified Vehicle entered the movement area at Taxiway H and crossed Runway 16 without ATC communication or approval. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION



PDK-M-2022/12/31-0001 RI VPD D

(Event 1 of 2) Unknown Vehicle crossed Runway 34 without ATC authorization. An unknown Vehicle crossed Runway 34 at Taxiway H from east to west without ATC communication or approval. Runway 34 was closed at the time. No other traffic was involved.

(Event 2 of 2) Unknown Vehicle crossed Runway 34 without ATC authorization. The unknown Vehicle crossed Runway 34 again at Taxiway H from west to east without ATC communication or approval. Runway 34 was closed at the time. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

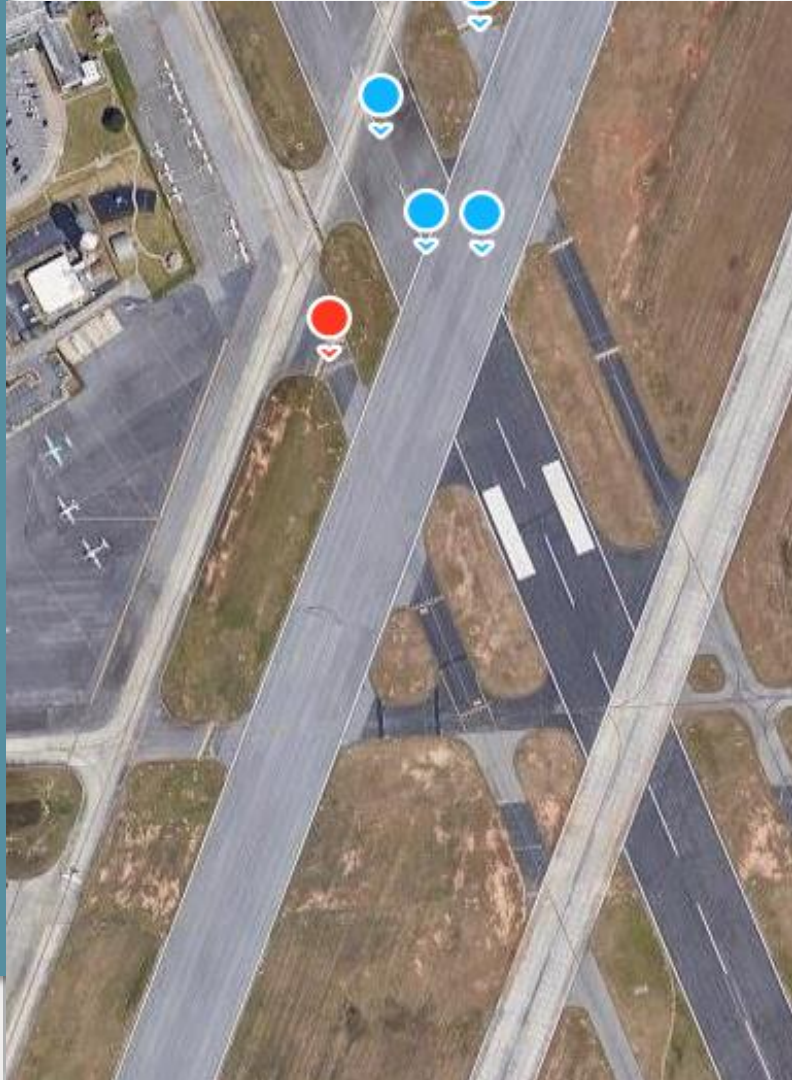


PDK-M-2022/12/01-0001 RI VPD D

Vehicle entered the Runway 16 RSA without ATC authorization. GC issued Vehicle/Airport Authority proceed via Taxiway E and Taxiway D to Runway 16. Vehicle reported holding short of Runway 16. Vehicle proceeded past the Runway 16 hold line at Taxiway D without ATC authorization. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

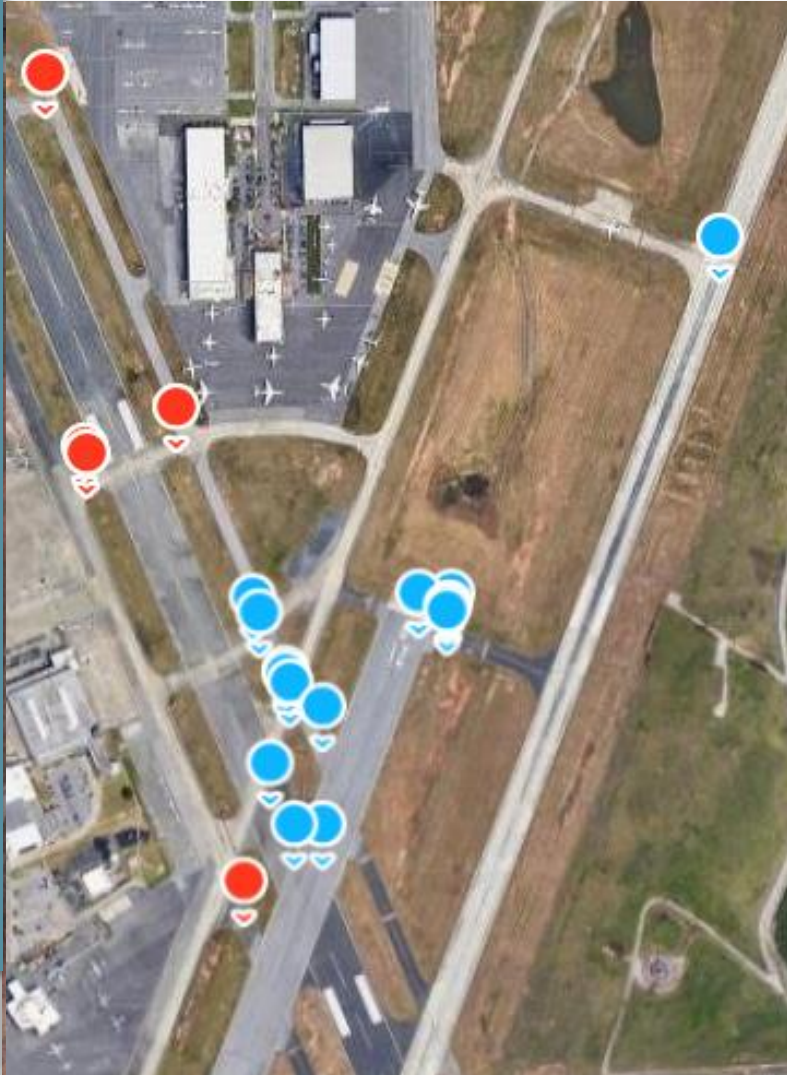


PDK-M-2022/11/16-0002 RI PD D

Aircraft 1 entered Runway 34 without ATC authorization. Aircraft 1/BE36 was on takeoff roll on Runway 3L and advised LC they were aborting takeoff due to an open door. Aircraft 1 turned left onto Runway 34 and stopped short of Taxiway A without clearance. LC gave Aircraft 1 instructions back to the runup pad for Runway 3L. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION



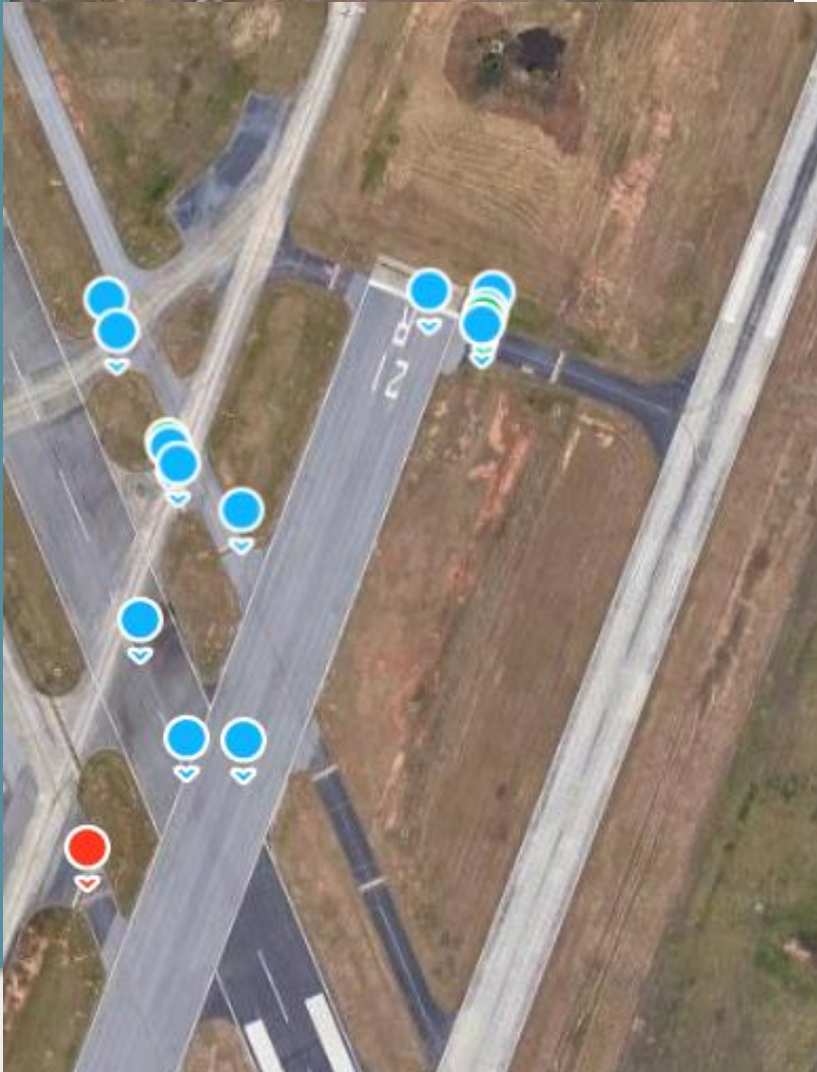
PDK-M-2022/11/01-0001 RI PD D

Aircraft 1 entered the Runway 34 RSA without ATC authorization. Aircraft 1/SR22 landed on Runway 21L and was instructed to exit right at Taxiway D, cross Runway 21R, and contact GC. Aircraft 1 did not contact GC. After crossing Runway 21R, Aircraft 1 turned left onto Taxiway A and crossed the Runway 34 hold line without approval. Aircraft 1 was stopped by GC before the runway edge line. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2022/10/26-0002 RI PD C



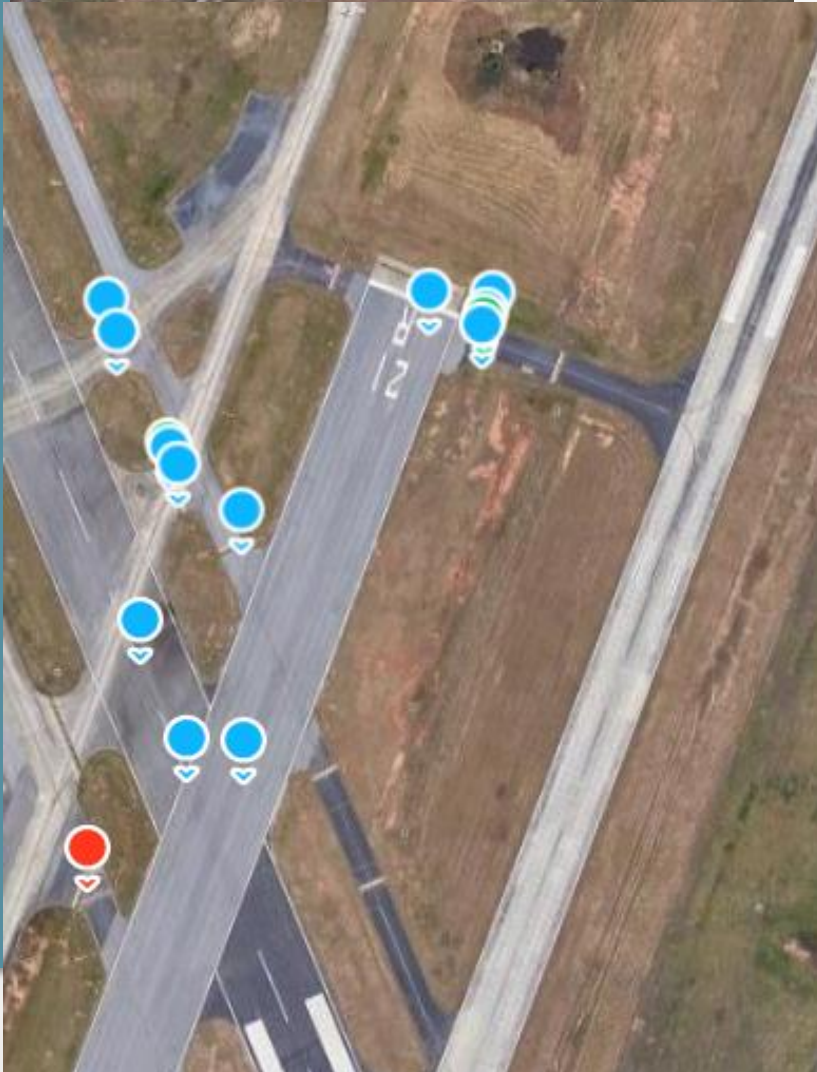
Aircraft 1 crossed Runway 3L without ATC authorization. Aircraft 2/PA28 was cleared for touch and go on Runway 3L. Aircraft 1/BE33 landed on Runway 3R and exited left on Taxiway G with instructions to hold short of Runway 3L and remain on this frequency. Pilot readback was correct. Aircraft 1 crossed Runway 3L without ATC approval as Aircraft 2 touched down within the first 1000 feet of the runway and then became airborne. Closest proximity was estimated as more than 3000 feet. No overflight occurred.

****Discussion****

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2022/10/23-0002 RI PD D

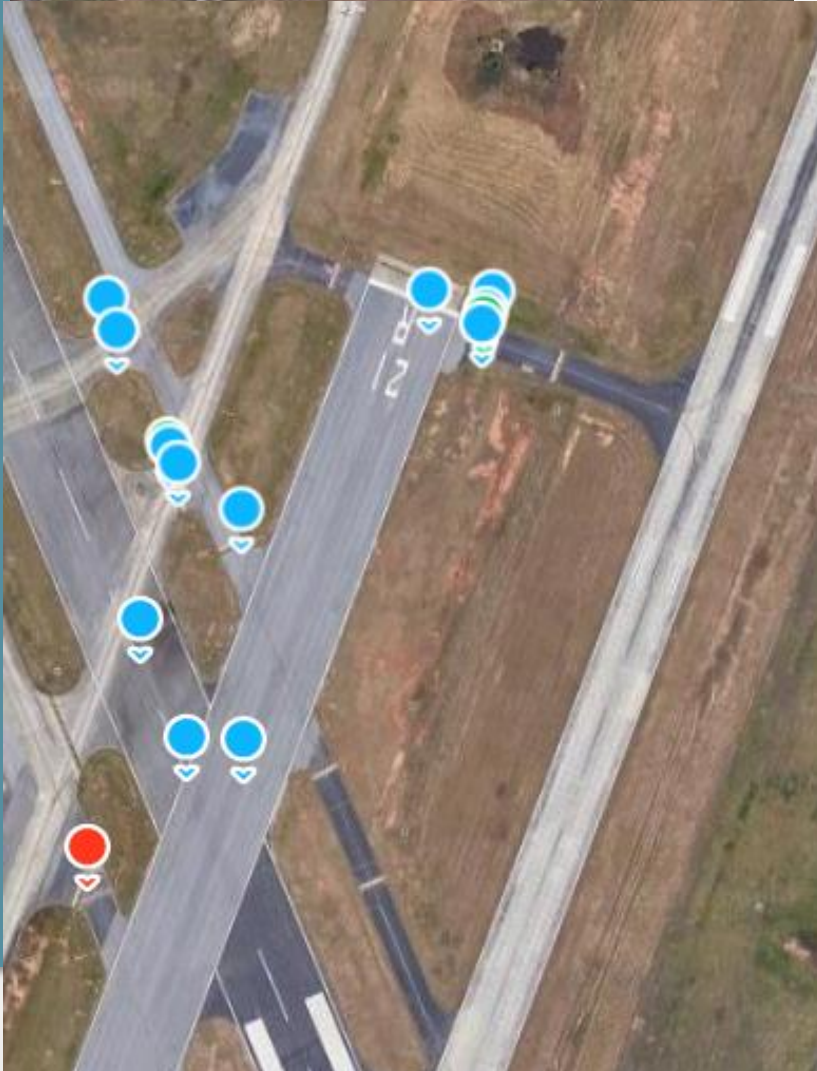


Aircraft 1 crossed Runway 34 without ATC authorization. Aircraft 1/SR22 landed Runway 3R and exited left at Taxiway G. Aircraft 1 was instructed to cross Runway 3L and contact GC without delay. The pilot read back cross Runway 36 at Taxiway G without delay. Aircraft 1 crossed Runway 3L and then proceeded to the ramp via Taxiway G, E, and B, and crossed Runway 34 without approval or contacting GC. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2022/10/07-0001 RI PD D

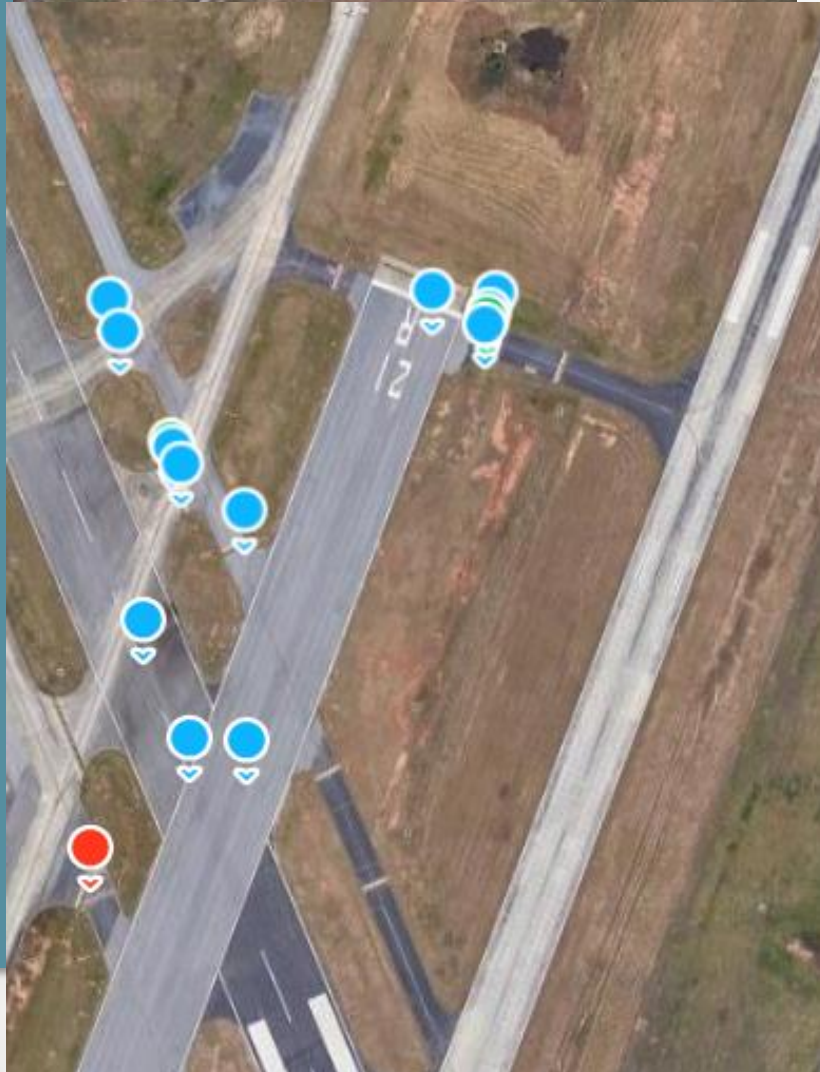


Aircraft 1 entered the Runway 3L RSA without ATC authorization. Aircraft 1/C182T exited Runway 3R at Taxiway G with instructions to hold short of Runway 3L. The pilot read back was correct. Aircraft 2 was then cleared for takeoff on Runway 3L. Aircraft 1 was instructed to pull up to clear the Runway 3R hold line and hold short Runway 3L. Aircraft 1 crossed the Runway 3L hold line without approval. Aircraft 1 was instructed to stop and Aircraft 2's takeoff clearance was canceled. The aircraft did not begin takeoff roll.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2022/09/20-0003 RI PD D

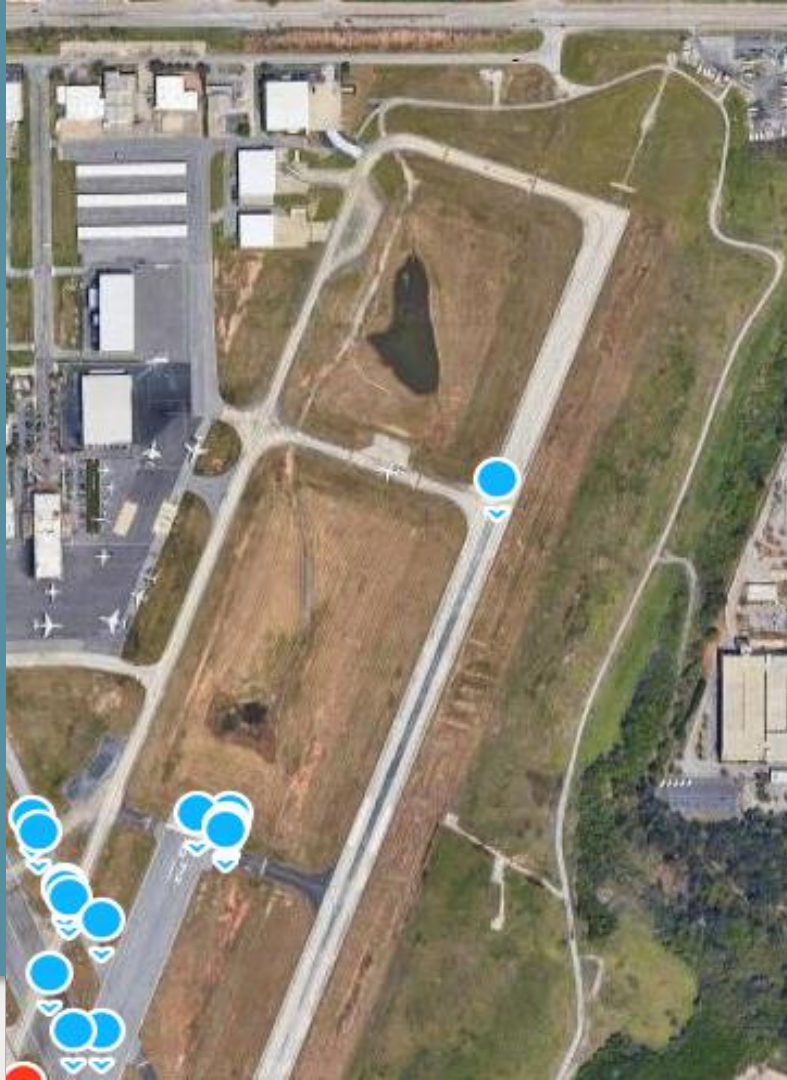


Aircraft 1 crossed Runway 34 without ATC authorization. Aircraft 1/PA28 landed on Runway 3R and was instructed to turn left on Taxiway G, cross Runway 3L, and contact GC. Aircraft 1 did not switch to GC. The aircraft continued to taxi on Taxiway E and crossed Runway 34 without approval. LC instructed Aircraft 1 to stop. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2022/09/03-0001 RI PD D

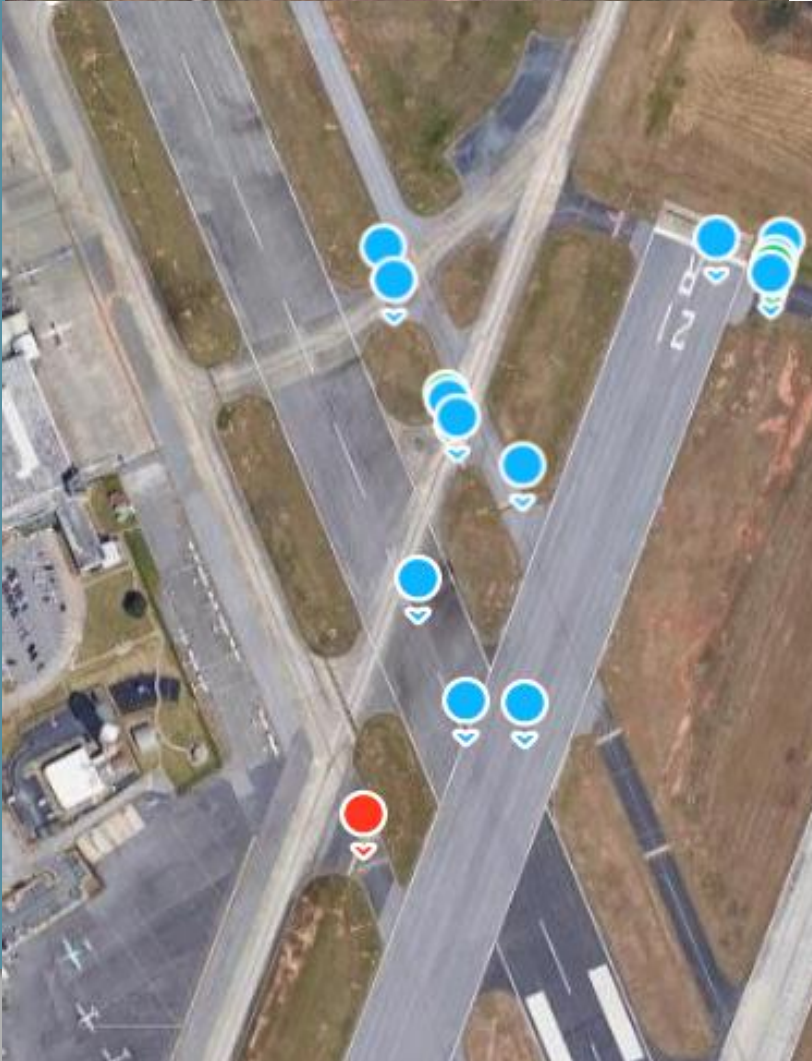


Aircraft 1 landed on Runway 21L without ATC authorization. Aircraft 1/COL was cleared for the option Runway 21R. The pilot readback was correct. Aircraft 1 side-stepped on short final and landed on Runway 21L without an ATC clearance. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2022/06/30-0001 RI PD D

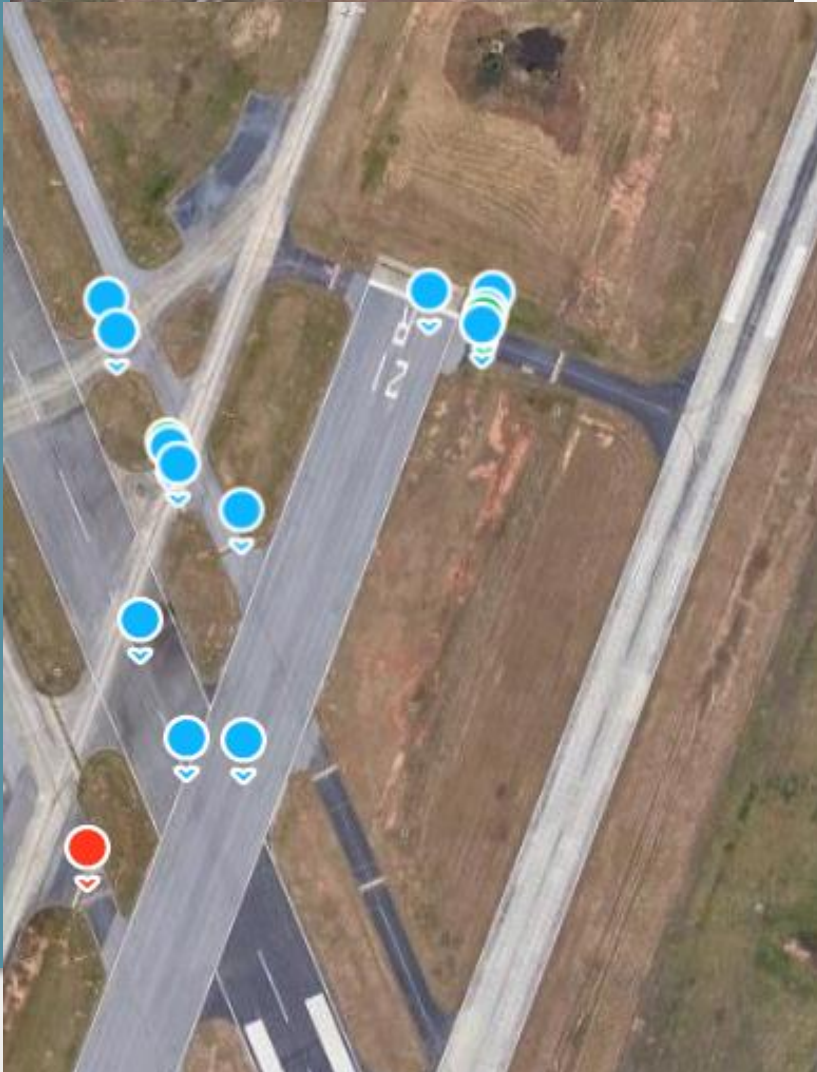


(2 Events) Aircraft 1 entered Runway 34 without ATC authorization. GC taxied Aircraft 1/SR22 to Runway 21R via Taxiway A, cross Runway 34. The pilot read back was correct. While crossing Runway 34, Aircraft 1/SR22 turned right and entered Runway 34 without ATC authorization; then left onto Runway 21R without a clearance. GC instructed the pilot to exit the runway immediately. Aircraft 2/PA28 on approximately 0.50 mile final to Runway 21R was issued go around instructions. Aircraft 1 was clear of the runway before Aircraft 2 crossed the threshold.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2022/06/27-0001 RI PD C

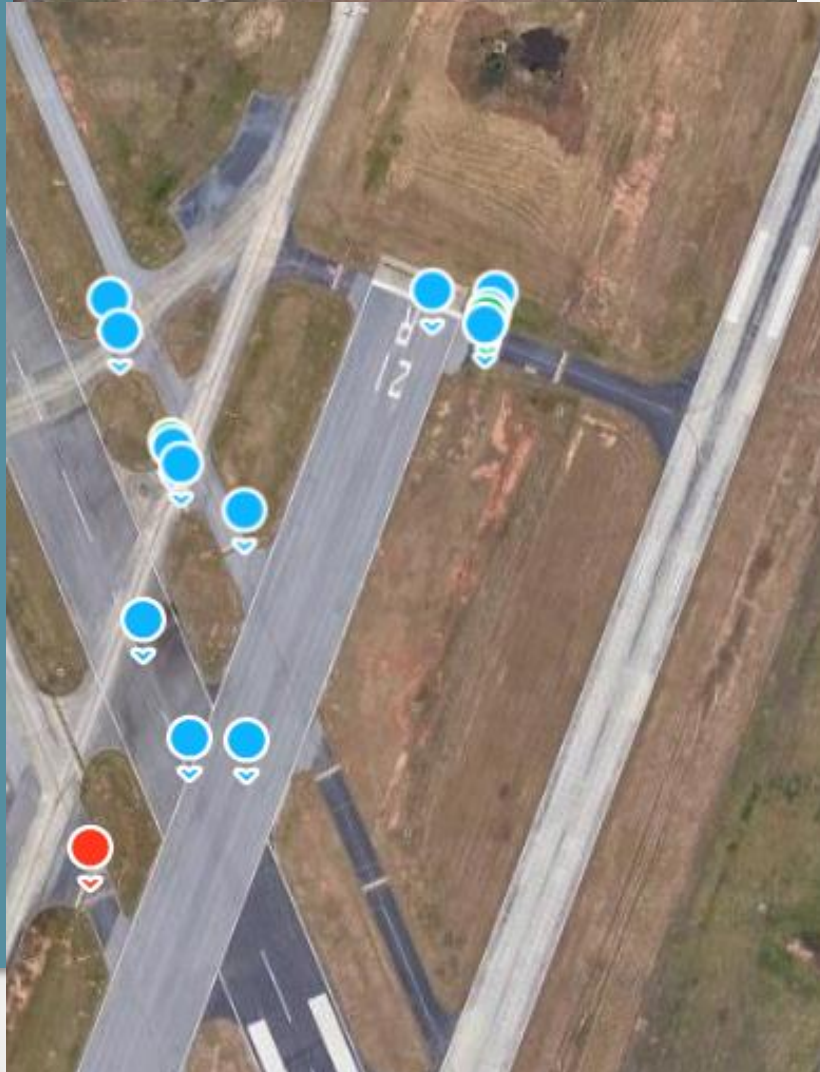


Aircraft 1 crossed Runway 3L without ATC authorization. Aircraft 1/P32R landed Runway 3R and ATC instructed the pilot to hold short of Runway 3L at Taxiway G. Aircraft 1 turned left on Taxiway G but did not continue across the hold line for Runway 3R. ATC instructed the pilot to pull up to and hold short of Runway 3L. The pilot readback was correct. Aircraft 1 crossed Runway 3L without ATC authorization and stopped inside the RSA for Runway 3L. LC instructed the pilot to continue taxi across the hold line for Runway 3L. Aircraft 2/PA28 was crossing the threshold and landed Runway 3L with Aircraft 1 still in the RSA. The closest proximity was estimated at 3746.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION

PDK-M-2022/06/23-0001 RI OI D



Aircraft 1 entered Runway 03L without ATC authorization. On landing roll Runway 03R, LC instructed Aircraft 1/C210 to exit at Taxiway G; cross Runway 03L and contact GC. The pilot acknowledged with a call sign only. Aircraft 1 stopped between Runways 03R and 03L on Taxiway G and contacted GC. GC instructed Aircraft 1 to hold short Runway 03L and return to LC frequency. The pilot did not read back the hold short instructions. GC did not catch the readback error and Aircraft 1 crossed Runway 03L without a clearance. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION



PDK-M-2022/06/06-0002 RI PD C

Aircraft 1 entered the Runway 21R RSA without ATC authorization. Aircraft 1/H25B/L landed Runway 21L and was cleared to turn right on Taxiway F, hold short of Runway 21R. The pilot read back was correct. Aircraft 2/C172/G was cleared for takeoff Runway 21R. Aircraft 1 crossed the Runway 21R hold line without a clearance and was stopped by LC before entering the runway. Aircraft 2 was airborne prior to Taxiway C. The closest estimate proximity was 775 feet.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION



PDK-M-2022/06/05-0001 RI PD D

Aircraft 1 entered Runway 3L without ATC authorization. Aircraft 1/RV6 was holding short of Runway 3L at Taxiway A for arrival traffic. LC advised Aircraft 1 to be ready for immediate takeoff. The pilot read back was correct. After the proceeding traffic landed and exited the runway at Taxiway C, Aircraft 1 entered Runway 3L without ATC authorization. LC instructed Aircraft 1 to stop, hold position; then cleared the aircraft for takeoff. No other traffic was involved.

LOCAL SURFACE EVENT REVIEW

RUNWAY INCURSION



PDK-M-2022/06/05-0001 RI PD D

Aircraft 1 entered Runway 3L without ATC authorization. Aircraft 1/RV6 was holding short of Runway 3L at Taxiway A for arrival traffic. LC advised Aircraft 1 to be ready for immediate takeoff. The pilot read back was correct. After the proceeding traffic landed and exited the runway at Taxiway C, Aircraft 1 entered Runway 3L without ATC authorization. LC instructed Aircraft 1 to stop, hold position; then cleared the aircraft for takeoff. No other traffic was involved.

SURFACE INCIDENT (SI)



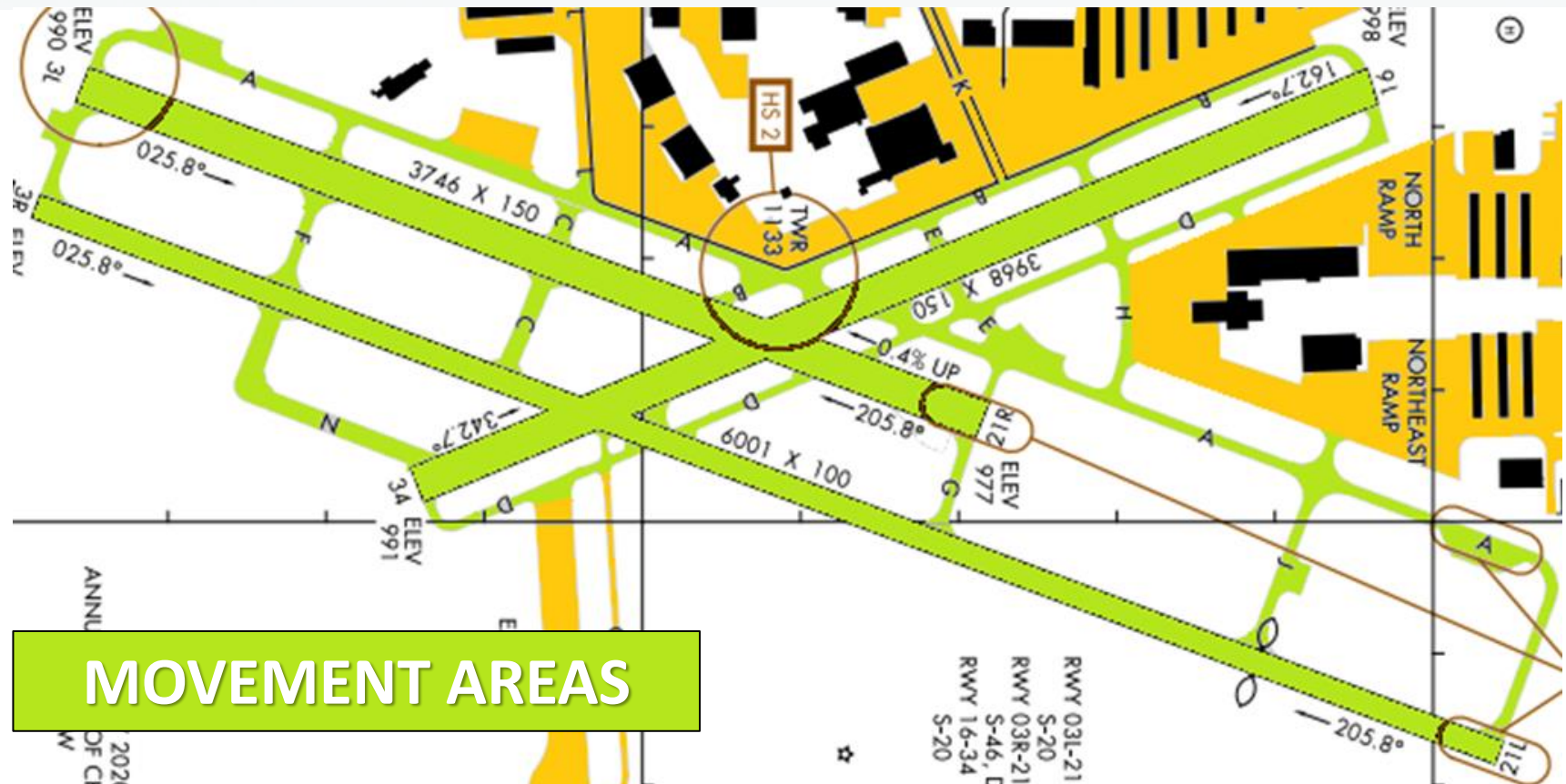
An unauthorized movement of an aircraft, vehicle or pedestrian within the designated movement area, but **outside of the RSA**



AIRFIELD MOVEMENT AREAS

THE MOVEMENT AREA

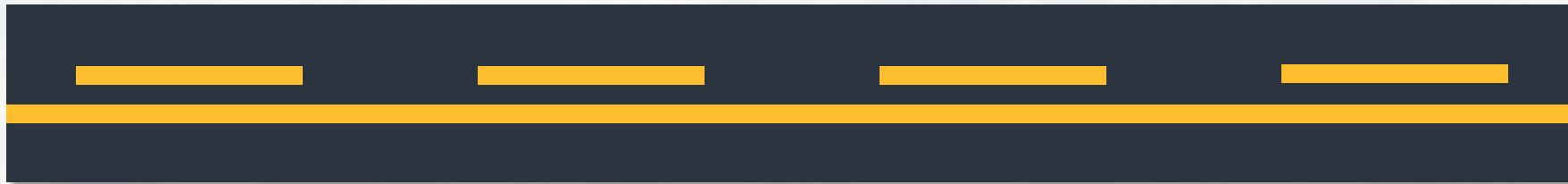
- ATC authorization is required to enter the **Movement Areas**
- When on this surface, but outside the RSA/Protected Area, without authorization, you have committed a Surface Incident (SI)



MOVEMENT/NON-MOVEMENT HOLD LINE

You will meet the single solid line first

- Usually found on apron surfaces and taxiway entrances
- Authorization is required when entering the movement area
- Crossing this line without authorization is a Surface Incident (SI)



SURFACE INCIDENTS

FY2022 | BY THE NUMBERS

565 surface incidents occurred in the NAS. Of which:

4 aircraft departed from a taxiway

15 aircraft aligned with and landed on a taxiway

50% PD

5% OI

31% VPD

14% OTH



LOCAL SURFACE EVENT REVIEW

SURFACE INCIDENTS (SI)

Add local SI events on the following slides for discussion

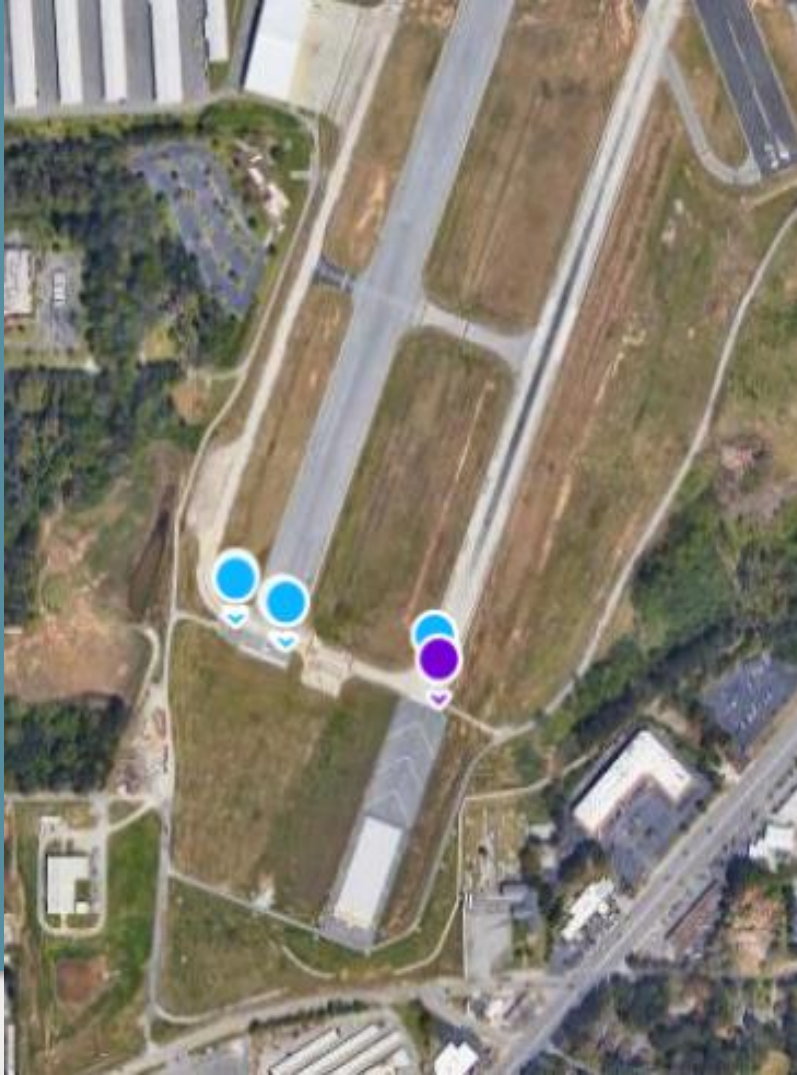
- What went wrong?
- Is this a recurring trend?
- What are lessons learned?
- What local mitigations have been or could be implemented?



LOCAL SURFACE EVENT REVIEW

SURFACE INCIDENT

PDK-M-2023/03/26-0001 SI OTH P



Aircraft 1 excused Taxiway A. Aircraft 1, S22T landed on Runway 21L and was instructed to exit at the end, cross Runway 21R, and contact GC. After exiting Runway 21L, Aircraft 1 veered off the left side of Taxiway A into the grass becoming stuck and the pilot requested a tow.

LOCAL SURFACE EVENT REVIEW

SURFACE INCIDENT

PDK-M-2023/05/04-0001 SI VPD P



Vehicle entered Taxiway D without ATC authorization. Vehicle was in the East Ops Area. Approaching the west end non-movement area boundary marking, Vehicle requested to reposition to the Northwest Ramp. Vehicle was instructed to hold short of Runway 3R. The driver read back correctly. Vehicle crossed the non-movement area boundary marker and stopped on Taxiway D (outside Runway 3R RSA) without approval. Uninvolved PA28 on a 1/2-mile final Runway 3R was set around. No other traffic involved.

LOCAL SURFACE EVENT REVIEW

SURFACE INCIDENT

PDK-M-2023/05/06-0002 SI VPD P



Pedestrian entered Taxiway B without ATC authorization. A construction site escort was observed walking across Taxiway B from Taxiway E to the ramp without a radio to communicate with ATC or approval.

RUNWAY EXCURSION (RE)



A veer off or overrun from the runway surface during take-off or landing

Contributing factors may include:

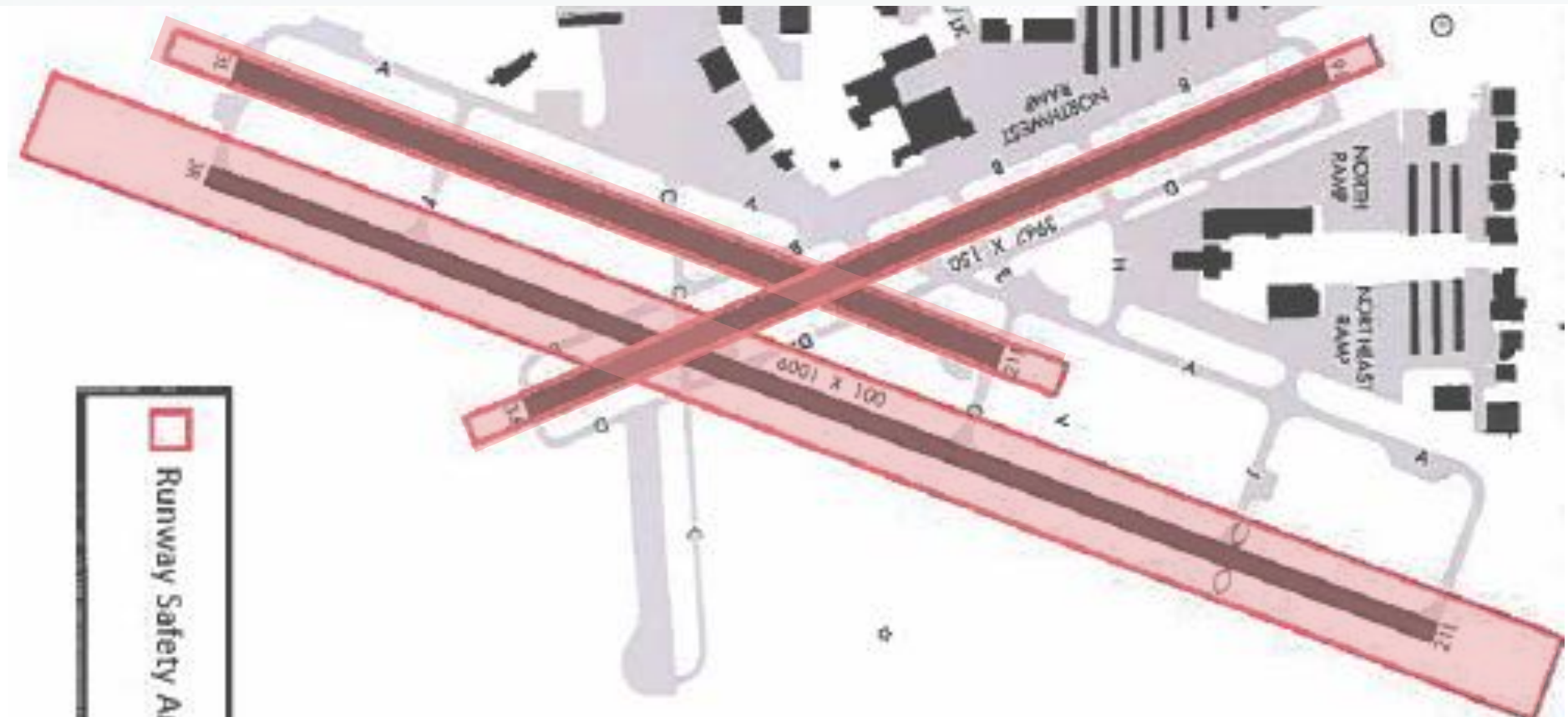
- Unstable Approaches
- Cross Wind Component
- Tailwind
- Mechanical
- Runway Conditions



AIRFIELD MOVEMENT AREAS

RSA / PROTECTED AREA

Aircraft unintentionally leaving the designated or paved runway surface experience a Runway Excursion (RE)



RUNWAY EXCURSIONS

FY2022 | BY THE NUMBERS

477 REs occurred in the NAS.
Of which:

443 general
aviation
aircraft

26 commercial
aircraft

5 military aircraft
3 foreign aircraft

Main contributing factors:

Aircraft problems, loss of control, and unstable approaches



LOCAL SURFACE EVENT REVIEW RUNWAY EXCURSIONS (RE)

Add local RE events on the following slides for discussion

- What went wrong?
- Is this a recurring trend?
- What are lessons learned?
- What local mitigations have been or could be implemented?



LOCAL SURFACE EVENT REVIEW

RUNWAY EXCURSION



PDK-M-2023/01/14-0001 RE OTH N/A

Aircraft 1 excused Runway 3R. Aircraft 1/P46T was cleared to land Runway 3R. After landing, Aircraft 1 experienced a wind gust that caused the aircraft to veer off the right side of the runway passing the Runways 34 and 3R intersection. The aircraft came to a stop on Taxiway D after the nose gear collapsed.

EMAS (Engineered Material Arresting System)

SINCE 1996 | BY THE NUMBERS

19 runway excursions have been stopped safely by EMAS, protecting **421** crew and passengers

118 EMAS MAX beds are installed at **70** airports across the NAS as of 2022

70 knots
or less

The speed at which standard EMAS is designed to stop the most demanding, regular-use aircraft



EMAS info

4 greenEMAS® beds are installed at MDW



WSO

WRONG SURFACE OPERATIONS

WSOs involve landing on or taking off from a taxiway, wrong runway, or landing at a wrong airport. Risk factors include:

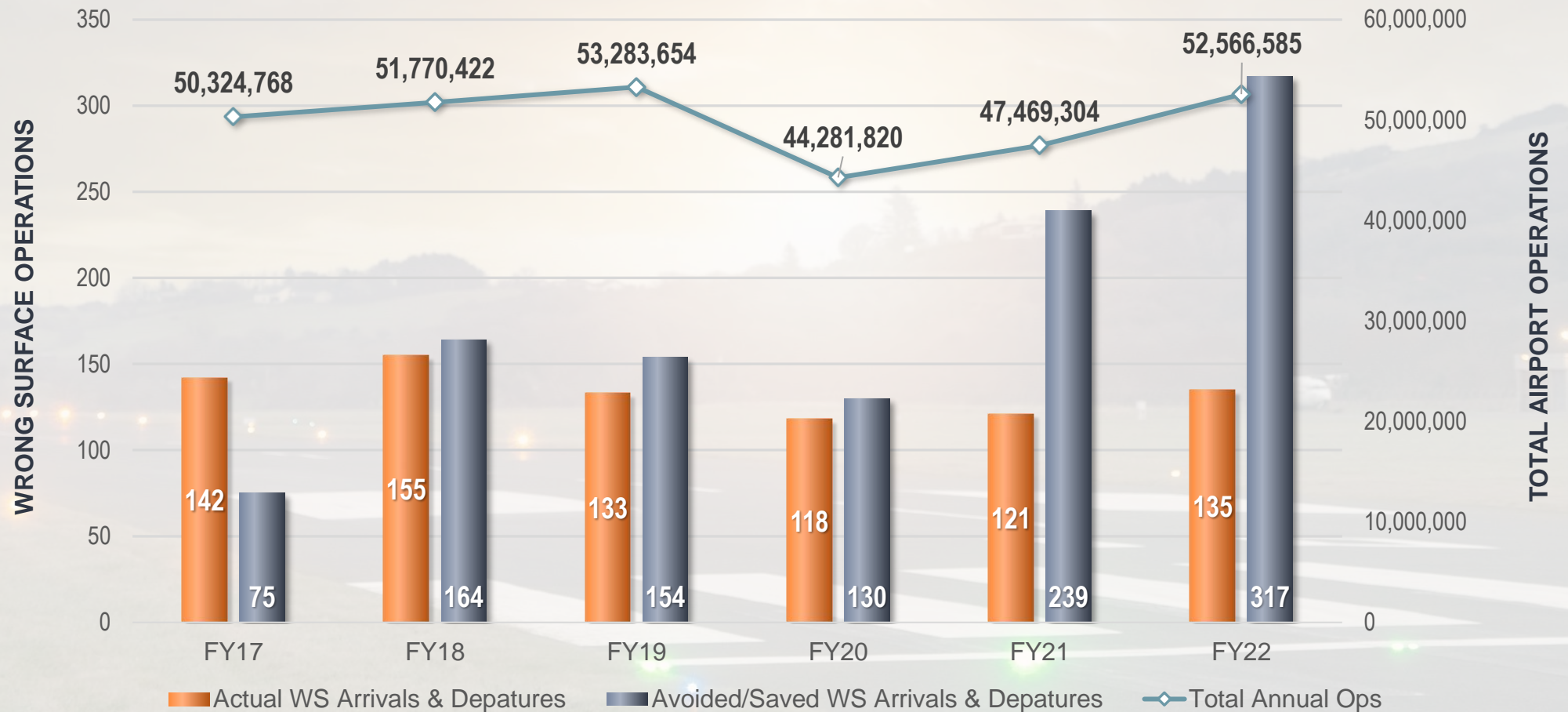
- Parallel runways, particularly offset thresholds, or irregular spacing
- Closely aligned runway ends
- Parallel taxiways
- Close airports with similar configurations



WRONG SURFACE OPERATIONS

BY THE NUMBERS

FY2017 – Sept. 30, 2022

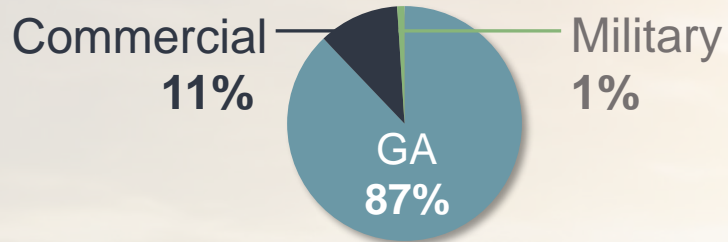


WRONG SURFACE OPERATIONS

FY2022 | BY THE NUMBERS

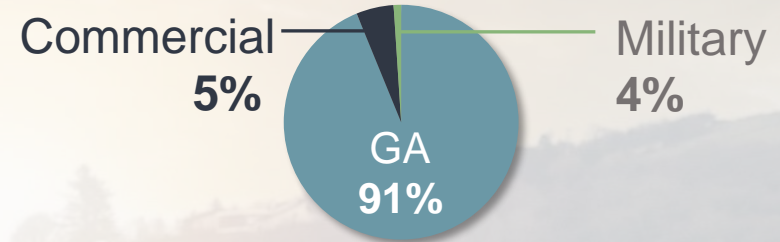
WSO by Operator Type *

Arrivals



WSO by Operator Type

Departures



WSO Daytime Events



WSO by Surface Type

	Arrivals	Departures
Wrong Runway	67	35
Taxiway	15	4
Other Surface	3	0
Wrong Airport	9	2

WSOs Involving Other Aircraft



* Numbers shown here do not equal 100% due to rounding



WSO

WRONG SURFACE OPERATIONS

Know before you go:

- Be familiar with the airport diagram and keep a copy for reference
- Find a satellite airport image for a realistic view of what to expect
- Confirm your compass heading matches your assigned runway
- See something, say something



Wrong Surface Landings



Wrong Airport Landings



Wrong Direction Intersection Takeoffs

LOCAL SURFACE EVENT REVIEW

WRONG SURFACE OPERATIONS

Discuss local WSO events

- What went wrong?
- Is this a recurring trend?
- What are lessons learned?
- What local mitigations have been or could be implemented?



ARRIVAL ALERT NOTICE (AAN)

AANs address Wrong Surface

Where Aircraft
lines up to or
lands on a:

- Taxiway or
- Incorrect
runway or
airport



ARRIVAL ALERT NOTICE (AAN) AAN VIDEO



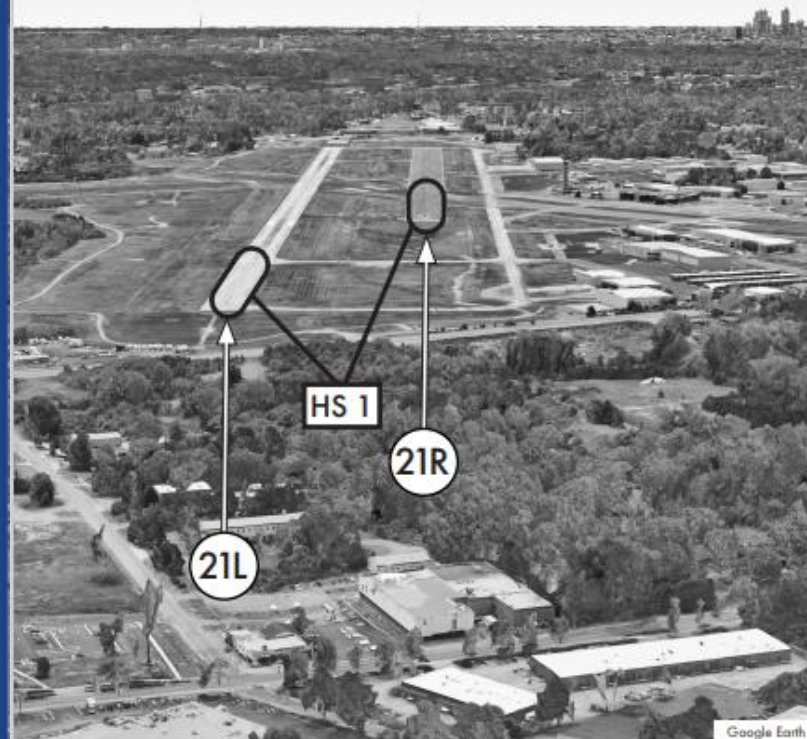
FROM THE FLIGHT DECK

HAZARDS AND HOT SPOTS

Arrival Alert Notice

DEKALB-PEACHTREE (PDK) ARRIVAL ALERT

Landing Southwest
RWY 21L and RWY 21R and TWY A



Pilots be aware that RWY 21R threshold is 2255 ft further down than RWY 21L threshold and TWY A.

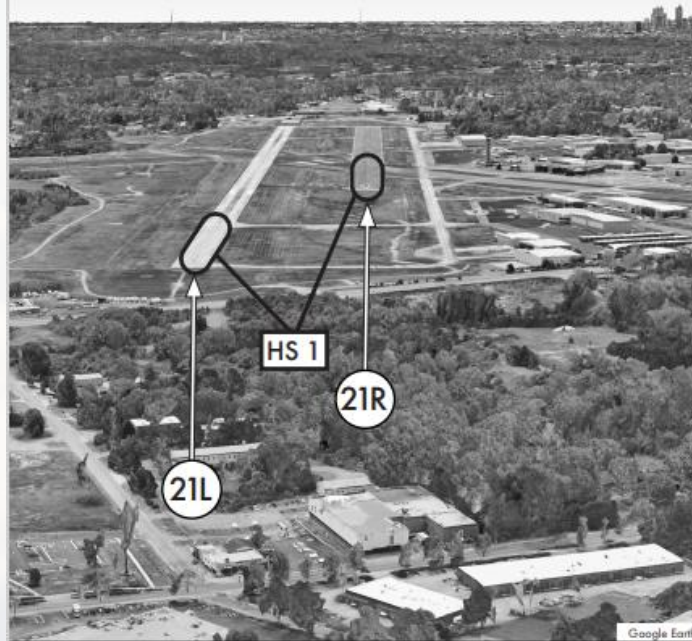
Not for Navigational Purposes
For Situational Awareness Only
For Inquiries: 9-awa-RunwaySafety@faa.gov
Effective 19 MAY 2022 to 16 MAY 2024

LOCAL

ARRIVAL ALERT NOTICE (AAN)

DEKALB-PEACHTREE (PDK) ARRIVAL ALERT

Landing Southwest
RWY 21L and RWY 21R and TWY A



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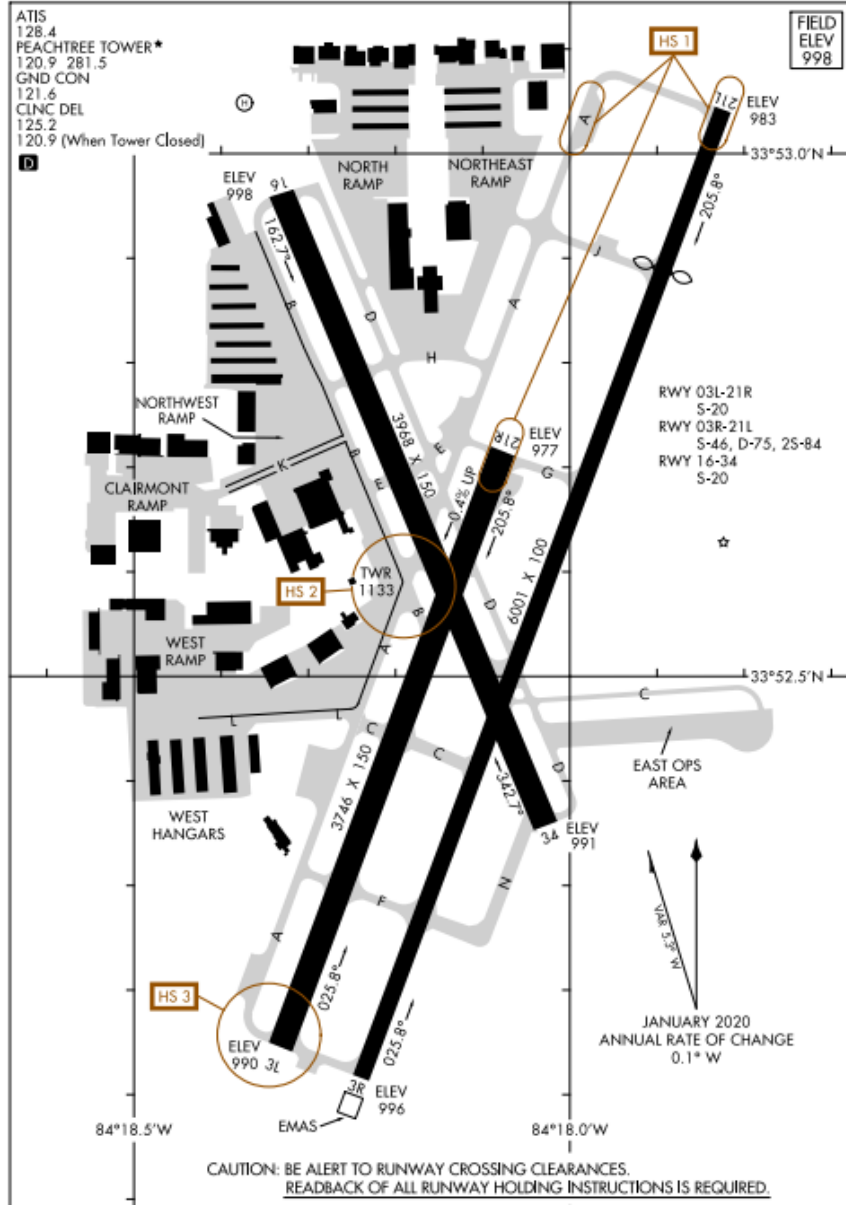


22139

AIRPORT DIAGRAM

AL-469 (FAA)

DEKALB-PEACHTREE (PDK)
ATLANTA, GEORGIA



SE-4, 15 JUN 2023 to 13 JUL 2023

SE-4, 15 JUN 2023 to 13 JUL 2023

NE-2, 06 OCT 2022 to 03 NOV 2022

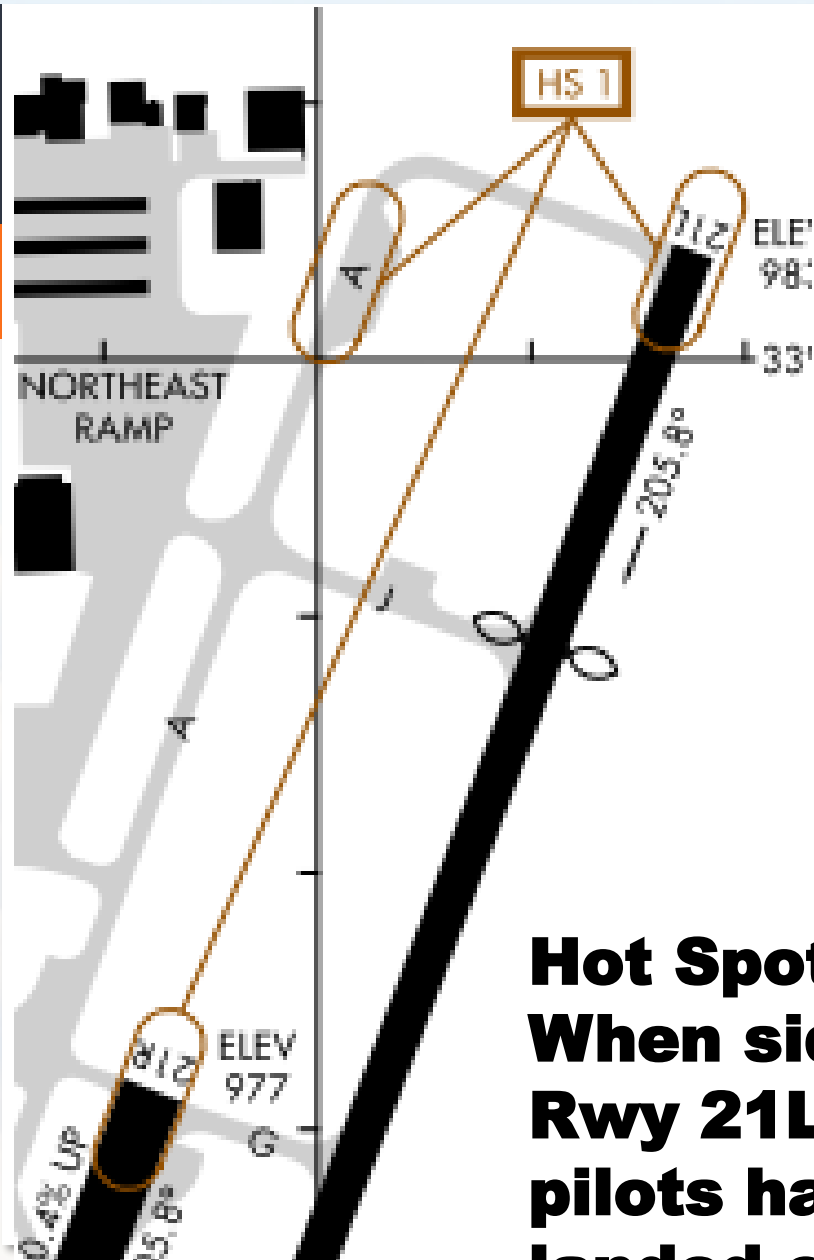
AIRPORT DIAGRAM
22139

ATLANTA, GEORGIA
DEKALB-PEACHTREE (PDK)

Dekalb-Peachtree (PDK)

AIRPORT DIAGRAM





Dekalb-Peachtree (PDK)

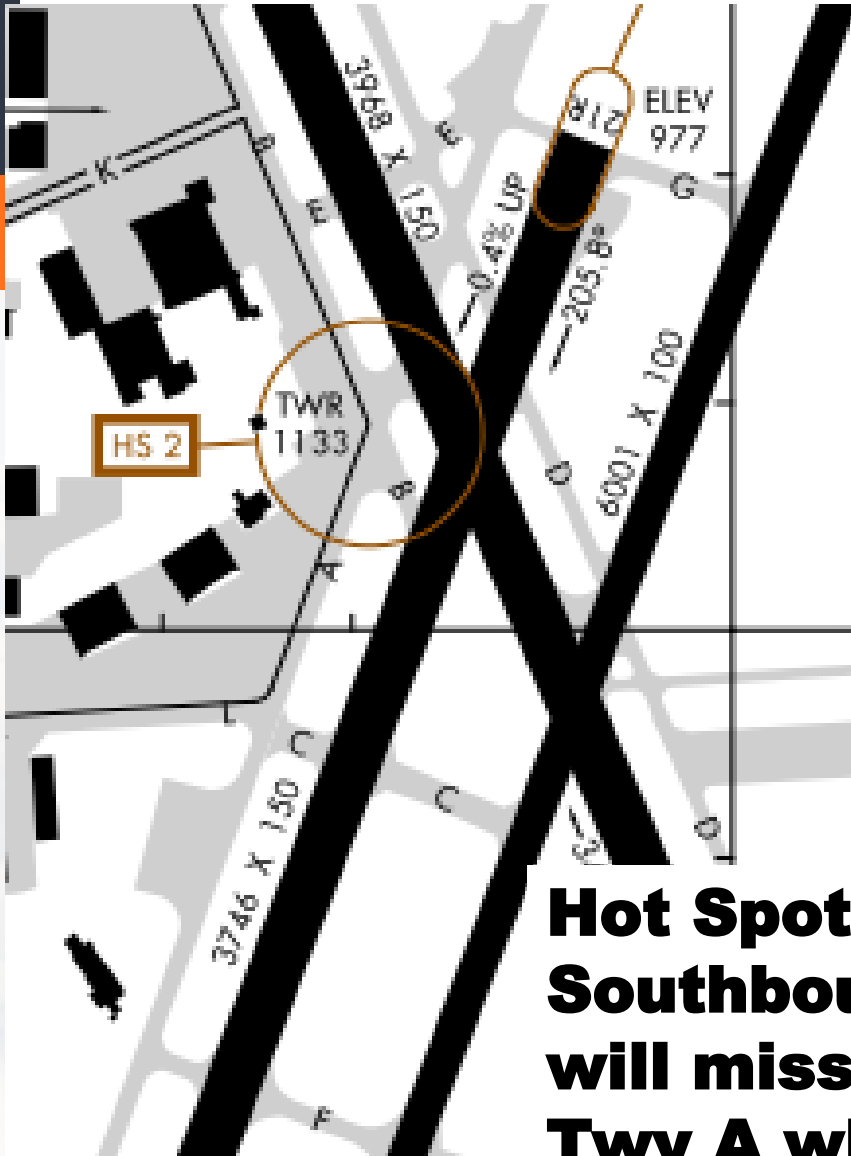
HOT SPOT

A location on an aerodrome movement area:

- With a history or potential risk of collision or RI
- Where heightened attention by pilots and drivers is necessary

Hot Spot 1
When side stepping from Rwy 21L to Rwy 21R pilots have mistakenly landed on Twy A.





Dekalb-Peachtree (PDK)

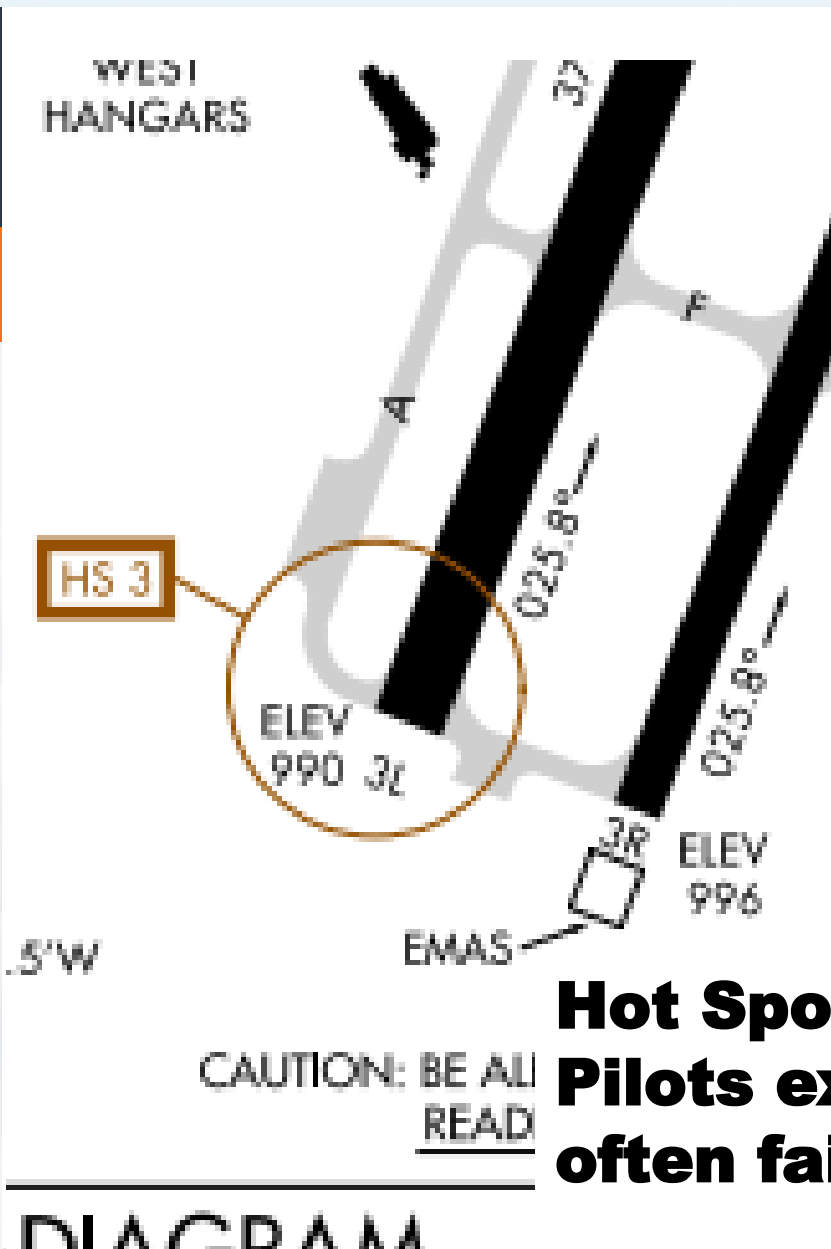
HOT SPOT

A location on an aerodrome movement area:

- With a history or potential risk of collision or RI
- Where heightened attention by pilots and drivers is necessary

Hot Spot 2
Southbound tfc on Twy B
will miss the turn onto
Twy A when assigned
Rwy 03L or Rwy 03R.





Dekalb-Peachtree (PDK)

HOT SPOT

A location on an aerodrome movement area:

- With a history or potential risk of collision or RI
- Where heightened attention by pilots and drivers is necessary

Hot Spot 3

Pilots expecting Rwy 03R often fail to hold at Rwy 03L



RUNWAY INCURSION MITIGATION (RIM)

RIM LOCATIONS

Airfield locations where multiple Runway Incursions (RIs) occur.

RI data triggers examination of runway/ taxiway intersections where 3 or more RIs occurred in 1 year or an average of 1 per year in the last 10 years. The FAA, airports, and industry develop mitigation projects to address RIs at these locations.

126

identified for mitigation

18

work currently in progress

91

corrected to date



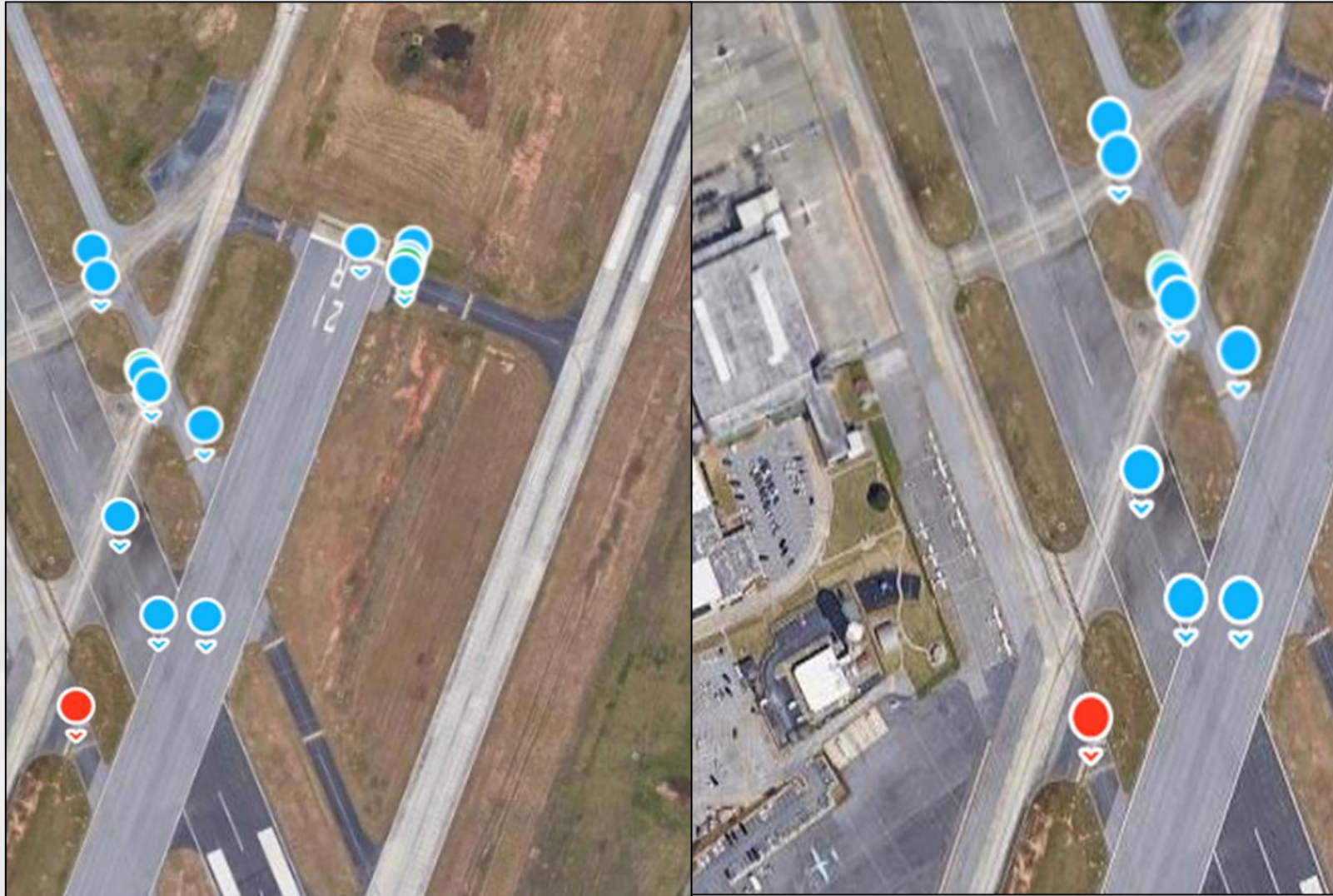
Active RIM locations



RIM Video



LOCAL RIM LOCATIONS



AIRPORT

CONSTRUCTION



AIRPORT CONSTRUCTION AWARENESS

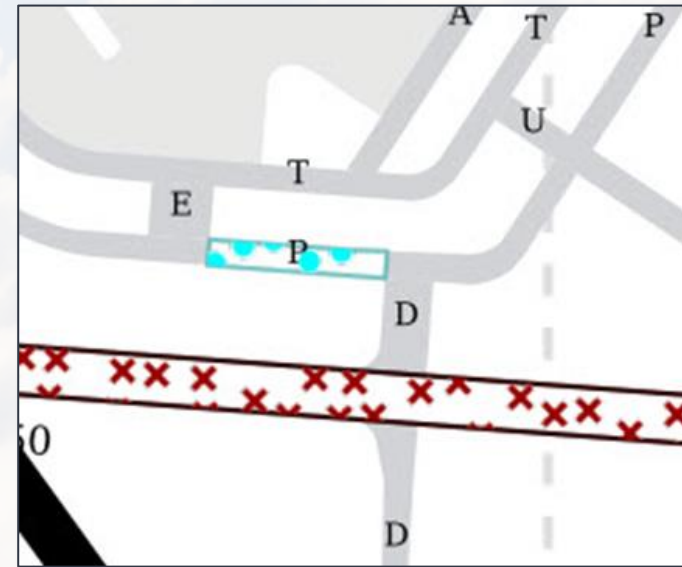
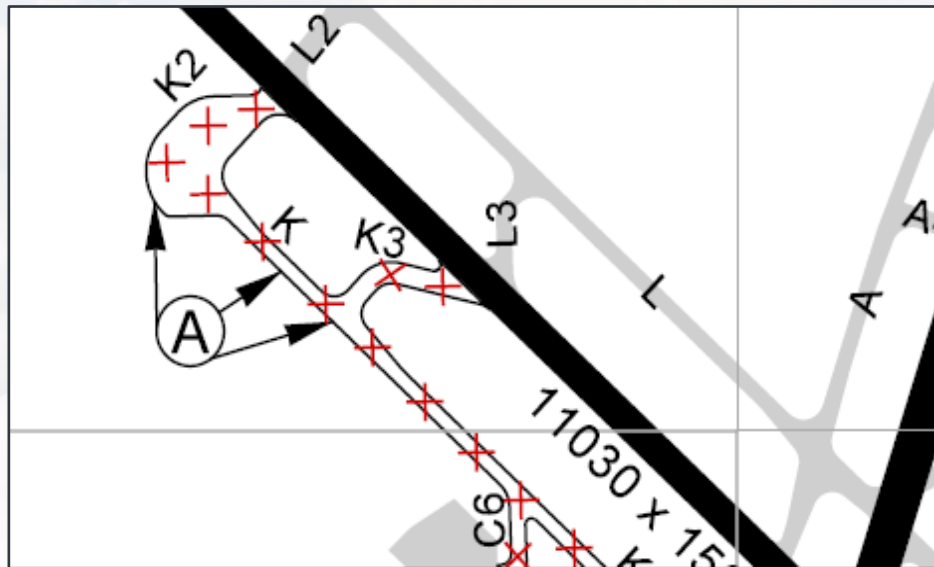


NOTAMS are notices filed to alert airfield users of potential hazards or airfield conditions.

- NOTAMs are added or changed by the Airport Operator and should be coordinated with ATC.
- Early construction coordination must also include the ACAC and is verified during External Compliance Verification (ECV) inspections.
- NOTAMs can be further used to produce Construction Notice Diagrams known as CNDs.

AIRPORT CONSTRUCTION AWARENESS (Cont.)

Generally, runway and taxiway closures and restrictions >24 hours are depicted and updated daily based on coordination and issued NOTAMs.



KEY:

- ✘ Closures
- Temporary restriction

AIRPORT CONSTRUCTION AWARENESS (Cont.)



Construction Notice Diagrams (CND) give airport users a visual depiction of the surface closures or restrictions on the airfield.

- CNDs **do not** replace traditional Airport Diagrams or NOTAMs and are found separately for pre-flight planning purposes.
- CNDs are updated **daily** as needed based on coordinated surface closures, restrictions and issued NOTAMs.

AIRPORT CONSTRUCTION

CNDs



Per Order 7210.3, early construction/ coordination with ACAC is required by the Air Traffic Manager (ATM)


- CNDs must currently be created **manually** each time a new construction project is coordinated with the ACAC.
- Each project **update** must also be coordinated with ACAC to properly reflect varying construction surface closures on your CND.
- Applicable surface closures will remain on the CND until project completion.

AIRPORT CONSTRUCTION


NEW AUTOMATED CNDs



FAA is transitioning to a new Automated CND process using NOTAM Manager to streamline coordination.

- This construction symbol , along with "ON AIRPORT – SEE CONSTRUCTION GRAPHIC" are **found at the top of each NOTAM Search** when applicable.
- Click here in the NOTAM Search to download the current CND.



	BNA	N/A		ON AIRPORT - SEE CONSTRUCTION GRAPHIC
	BNA	2/0570	REST	IAP NASHVILLE INTL NASHVILLE

AIRPORT CONSTRUCTION BEST PRACTICES

- **Coordinate** construction plans early among the Airport Operator, ATCT and ACAC.
- **Email ACAC** at: ConstructionCouncil@faa.gov.
- **Provide** briefings & training for controllers and tenants.
- **Meet** with your Local Safety Council (LSC) to discuss alternate procedures/taxi routes.
- **Coordinate** with Quality Control Group (QCG) for Safety Management System (SMS) requirements.
- **Use resources** & checklists found on Runway Safety Webpage under the Runway Construction Section.
- **Set up** an after-action review to determine what worked and what did not.
- **Use NOTAM Manager** when available at your airport for Automated CNDs.



AIRPORT CONSTRUCTION AWARENESS (Cont.)



Best
practices &
Checklists



Airport
Construction
Diagrams



ACAC
Mailbox



LOCAL PLANNED CONSTRUCTION

A brief overview of any construction projects planned for the upcoming year.

- **Keel Replacement Runway 3R/21L – FY23/24**
- **LED Lighting Project – Proposed FY24/25**



LOCAL AREA WEATHER TRENDS

The following are weather conditions specific to this airport:

- Thunderstorms
- Heavy Rain
- Low Cielings
- High Winds Associated with Convective Activity
- Winds Aloft vs Surface Winds
- Gusts vs Windshear



TRAINING AND OPERATIONS AIRFIELD DRIVERS

Review of driver policies, procedures, and training

- Who can drive on the airfield?
- How is training conducted and by whom?
- What happens when there is an RI, SI, etc.?
- Who do you contact if someone accesses the airfield without permission?



Situational
Awareness



Phraseology



Winter Ops



LOCAL AREA

WILDLIFE HAZARDS

The following are wildlife hazards specific to this airport:

- Coyotes
- Birds other than Waterfowl
- Waterfowl



LETTERS OF AGREEMENT

SURFACE OPERATIONS



- Requirements for Operating in the Runway Safety Area LOA- February 1, 2021
- Airport Emergency Procedures LOA – December 1, 2022
- Jurisdiction of Movement Areas – September 1, 2022





LOCAL UPCOMING SPECIAL EVENTS

The following are events
scheduled at this airport:



LOCAL USER CONCERNS REPORTED ISSUES

Enter reported issues from local pilots, stakeholders, tenants, Pilot-Controller Forums, etc. for discussion

- Runway 21L PAPIs OTS
- Runway 21L @ A, G Runway Guard Lights (Wig Wags) OTS
- Jet Blast from large acft departing Runway 3R

LOCAL RUNWAY SAFETY BEST PRACTICES

Enter best practices at *your* facility for discussion

- Midfield Crossing
- Traffic Calls for CSPR
- Sequencing acft to runways
- Increased use of LUAW
- Assurance of correct readback



OUTREACH



pdktower

Follow



488 posts

2,292 followers

436 following

Peachtree Tower (PDK)

Official Peachtree Tower NATCA Insta. This page does not represent the views of the Federal Aviation Admin (FAA).

PDK Tower Tour Sign Up Sheet:
bit.ly/PDK-Tower-Tour-Sign-Up



PILOT SAFETY AWARENESS VIDEOS

From the Flight Deck: Hazards and Hot Spots



- Over 100 specific airport and single-topic safety videos are available.



- Also available on the FAA YouTube Channel.



FROM THE FLIGHT DECK

COMMON SURFACE MISTAKES

WRONG SURFACE LANDINGS

**PARALLEL RUNWAYS WITH
STAGGERED THRESHOLDS**



SINGLE TOPIC

COMPLEX GEOMETRY

From the Flight Deck: Complex Airfield Geometry

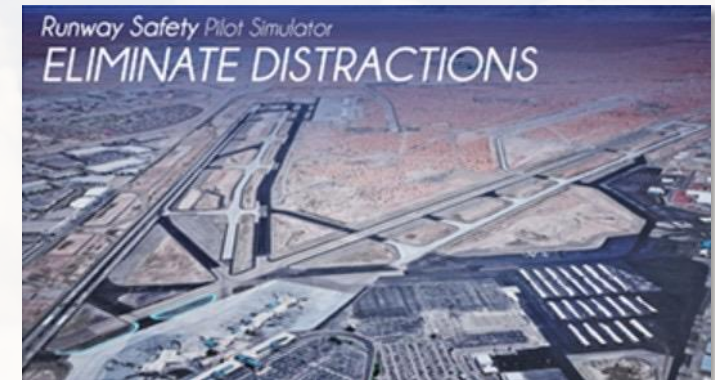
7 Videos on airfield geometry that frequently lead to runway incursions:

- Direct Access to Runways From Ramp Areas
- Taxiway Intersecting a Runway at Other Than Right Angle
- Short Distance from Ramp/ Apron to a Runway
- Wide Expanses of Taxiway Pavement Along Runway
- Short Distance Between Parallel Runways
- Runway Thresholds in Close Proximity
- Hold Short Lines in Unexpected Places

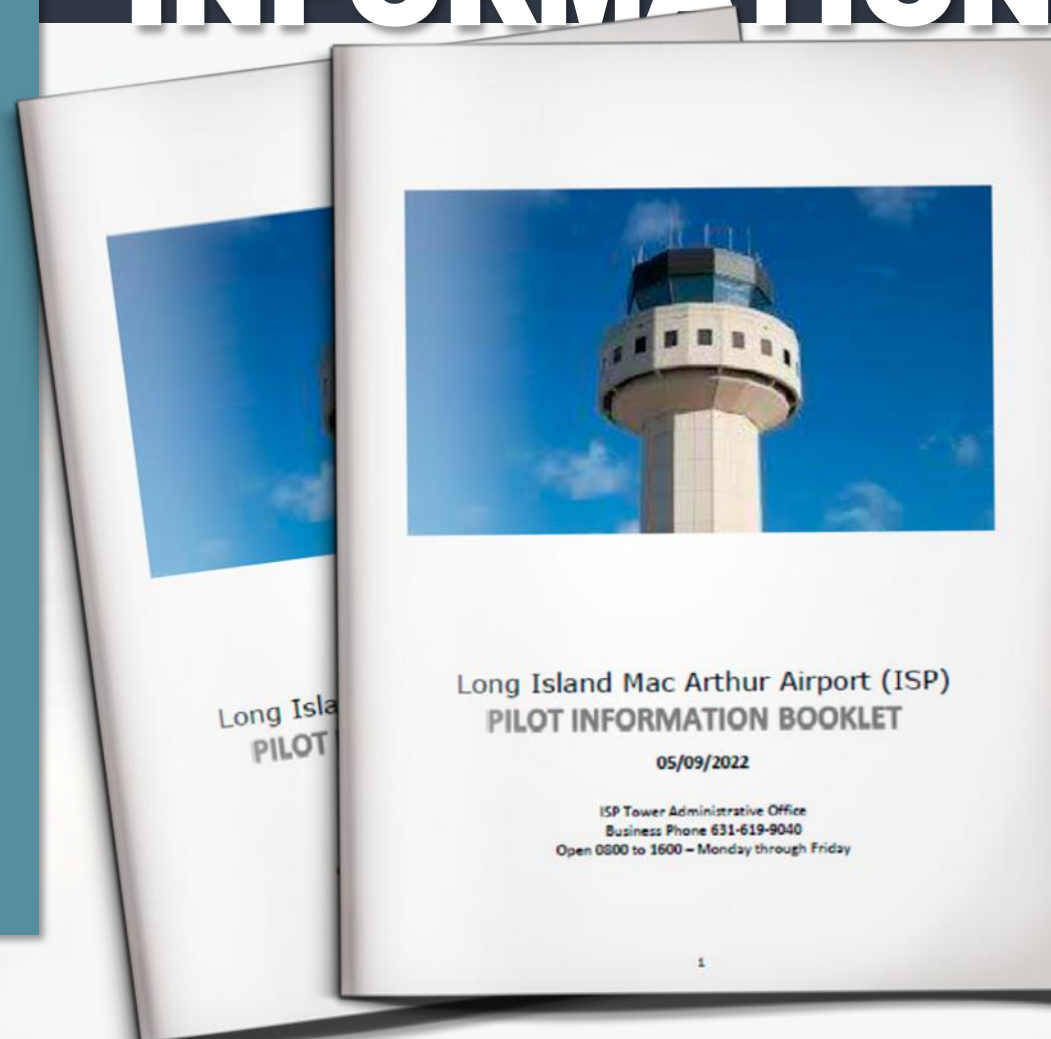


RUNWAY SAFETY PILOT SIMULATOR

An interactive
safety simulator
based on actual
surface events



PILOT INFORMATION BOOKLETS



Available at these facilities:

- ISP
- FTW
- BED
- POU
- LNK
- TEB
- BFI
- MKC

Future facilities can be found at:

Primary link: www.faa.gov/XXX

(Replace XXX with 3-letter airport ID)



NATIONAL FAA

SAFETY TEAM (FAASTeam)

Develops standardized safety interventions for General Aviation, and may support other safety initiatives such as:

UAS, NextGen, Runway Safety, The General Aviation Joint Steering Committee (GAJSC) Safety Enhancements

FAASTeam responds to localized safety issues through:

- Accident/incident reports involving airmen from the area
- Hazards identified by FAA Inspectors at local Flight Standards District Offices
- Information from the local aviation community
- Local Pilot Controller Forums



FAASTeam OUTREACH

Representatives:

- Aviation safety volunteers
- Work closely with FPMs to promote safety
- Receive training and are supported by the FPM with equipment and materials

Industry Members:

- Companies or associations of people that have a stake in aviation safety
- Guidelines formalize how these groups, with the FAASTeam, promote aviation safety.

Tools:

Using system safety principles, risk prioritization, and new technology concepts, safety techniques are used to shift the safety culture toward accident reduction.



FAAS**Team** **OUTREACH**

A FAASTeam** Member is anyone who promotes aviation safety and becomes part of the shift in safety culture**

To become a member:

- Sign-up – <https://www.faasafety.gov/>
- Participate in our new WINGS Program (Pilots)
- Participate in the new automated AMT Awards Program (Mechanics)
- Attend live FAAS**Team** webinars or events in your area



RUNWAY SAFETY ACTION PLAN

RSAP

- Action items are non-regulatory, voluntary, and flexible.
- The responsible parties for implementing and/or funding the Action Item must be in agreement with the Action Item.
- Your RSAP is due to your RSPM within 45 days for review and acceptance.
- Report Action Item updates & closures to your RSPM as completed.



RECENTLY CLOSED ACTION ITEMS

None



OPEN

ACTION ITEMS

None



PROPOSED NEW ACTION ITEMS

Action Item Description: Describe item

Action Item Rationale: Issue/concern

Estimated Completion Date:

Month/Day/Year

POC Organization: Operator/LOB

POC name: First & Last Name

POC phone: xxx.xxx.xxxx

POC email: xxxxxx.xxxx@xxx.xxx



NEXT UP

PLANNED PILOT- CONTROLLER FORUM

When:

Location:

NEXT RSAT

When:

Location:



CLOSING

YOUR OPPORTUNITY TO SAY SOMETHING



QR CODES

FROM THE FLIGHT DECK VIDEOS:



FAA



YouTube



Complex
Geometry

AIRFIELD DRIVERS:



Situational
Awareness



Phraseology



Winter Ops

Runway Safety Home Page



CONSTRUCTION:



Checklist



CND



ACAC
mailbox

FAA WEBSITES/LINKS:



Airport
Diagram



Pilot
Simulator



AAN



NOTAMs



EMAS



FAAST



Hot Spot
Description



RIM video

LINKS

FROM THE FLIGHT DECK VIDEOS:

FAA: https://www.faa.gov/airports/runway_safety/videos/

YouTube: <https://www.youtube.com/watch?v=FCfONL2r7C4>

Complex Geometry: <https://youtube.com/playlist?list=PL5vHkqHi51DQj1Qy-tAstk19DdXdjwk5Y>

AIRFIELD DRIVERS:

Situational Awareness: <https://youtube.com/watch?v=gTc-SZi9nk8&feature=share>

Phraseology: <https://www.youtube.com/watch?v=ILHsgz3aWZY>

Winter Ops: <https://youtube.com/watch?v=FNqAN1tHJUE&feature=share>

Runway Safety Home Page:
https://www.faa.gov/airports/runway_safety

CONSTRUCTION:

Checklist: https://www.faa.gov/airports/runway_safety/runway_Construction/

CND: https://www.faa.gov/air_traffic/flight_info/aeronav/aero_data/Apt_Constr_Notices/

ACAC mailbox: 9-AJA-ConstructionCouncil@faa.gov

FAA WEBSITES/LINKS:

Airport Diagram: https://www.faa.gov/airports/runway_safety/diagrams/

Pilot Simulator: <http://faarunwaysafetyimulator.com/>

AAN: https://www.faa.gov/airports/runway_safety/hotspots/aan

NOTAMs: https://notams.aim.faa.gov/notam_Search/disclaimer.html

EMAS: https://www.faa.gov/airports/engineering/incursions_excursions/emas

FAAST: <https://www.faasafety.gov/>

Hot Spot Description: https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/dtpp/search/

RIM Video: <https://youtu.be/v4oC6MFrkrY>

THANK YOU

Air Traffic Manager

Omar Johnson

678-495-5276 | omar.s.johnson@faa.gov

Airport Manager

Mario Evans

770-936-5440 | maevans@dekalbcountyga.gov

NATCA Representative

Michael McElwain

678-495-5276 | michael.mcelwain@faa.gov

